

**FOUNDATIONS
to the
Indiana Academic Standards
for
Young Children
from Birth to Age 5**



**Indiana Department of Education
and
Family and Social Services Administration,
Division of Family Resources,
Bureau of Child Care**

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FOUNDATIONS FOR YOUNG CHILDREN

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INTRODUCTION

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**Children come into this world eager to learn.
The first five years of life
are a time of enormous growth of linguistic,
conceptual, social, emotional,
and motor competence.**

(Eager to Learn, 2000, p. 1)

What do we know about young learners, ages birth to 5 years old?

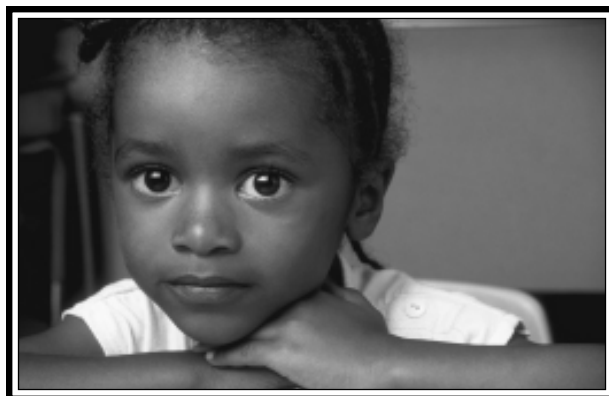
Young learners create understanding and knowledge actively, combining new concepts and ideas into what they already know. Research on brain development and how young children learn has demonstrated the phenomenal pace at which learning takes place from the moment of birth.

Adults have an opportunity and an obligation to assist children in becoming active participants in the learning process throughout their lives. To grow and learn, young children need early childhood settings that support the development of the full range of capacities that will serve as a foundation for future school learning.

It is vitally important that all children have learning experiences that are:

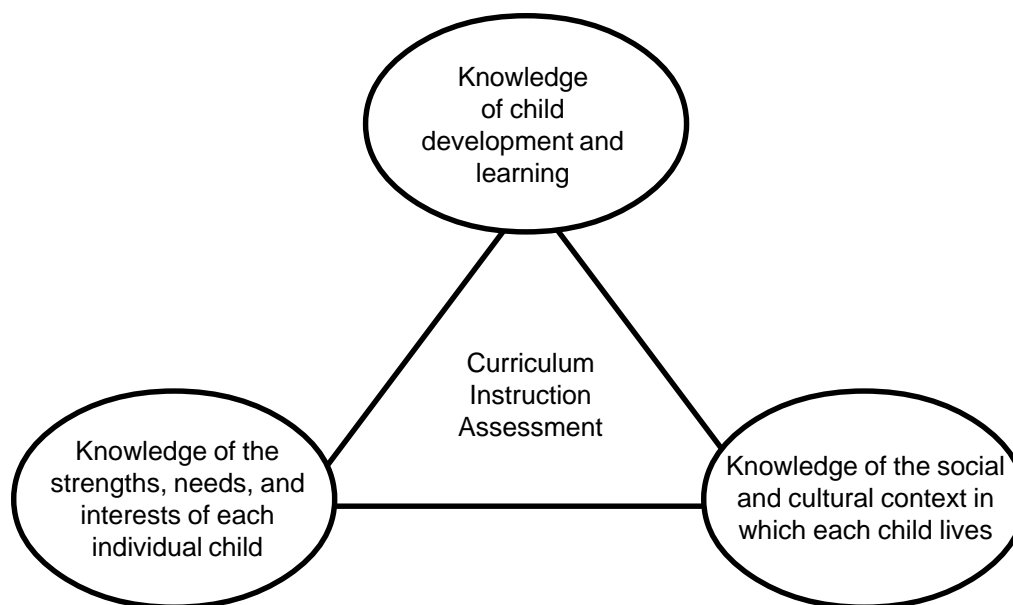
- Built on positive relationships with caring adults.
- Appropriate and based upon current knowledge and research of child development and learning.
- Focused on the strengths, needs, and interests of each individual child.
- Respect the social and cultural context in which each child lives.

Only after addressing these four essential areas of information and knowledge can individuals working with young children make decisions concerning appropriate learning experiences.



What is developmentally appropriate learning for young children?

Developmentally appropriate practice can be defined as a product of the adult making decisions based on at least three important kinds of knowledge and information:



Reference: Bredekamp, S. & Copple, C. (Eds.) (1997). *Developmentally appropriate practice in early childhood programs*. Washington, DC: NAEYC.

The concept of developmentally appropriate has two dimensions: age appropriateness and individual appropriateness. Age appropriateness refers to the universal, predictable sequences of growth and change that occur in children during the first nine years of life. Knowledge of typical development of children within the age span served by any program/home provides a framework from which the adult can prepare the learning environment and plan appropriate experiences. Both the curriculum and adults' interactions with children should be responsive to individual differences. Each child must be viewed as a unique person with an individual pattern and timing for growth. Learning for young children is the result of interaction between the child's thoughts and experiences with materials, ideas, and people. This child development knowledge should be used to identify the range of appropriate behaviors, activities, and materials for a specific age group and used in conjunction with understanding about individual children's growth patterns, strengths, interests, and experiences to design the most appropriate learning environment. Different levels of ability, development, and learning styles are expected, accepted, and used to design appropriate experiences. For the content and the teaching strategies to be developmentally appropriate, they must be age appropriate and individually appropriate.

What does research say about appropriate learning environments for young children?

Early childhood experts, along with the National Research Council's Report and Review Committee, have provided an independent review of quality experiences for young learners. The summary of findings from this study was published in a book entitled, *Eager to Learn: Educating Our Preschoolers* (2002).

From the Executive Summary of this study, some characteristics of quality experiences for young learners are listed below:

- Responsive interpersonal relationships with adults nurture young children's dispositions (desire) to learn and their emerging abilities.
- When curriculum aims are specified and integrated across domains, children tend to learn more and are better prepared to master the complex demands of future formal schooling.
- Young children who are living in circumstances that place them at greater risk of school failure—including poverty, low level of maternal education, maternal depression, and other factors that can limit their access to opportunities and resources—are much more likely to succeed in school if they have access to well-planned, high-quality early childhood experiences.
- Cognitive, social-emotional, and motor development are complementary, mutually supportive areas of growth and require active attention.

The Birth to Three and Three to Five Leadership Committees support the notion that it is the **whole** child that must be developed. Early childhood experiences should focus on all *domains* or aspects of development:

- ***Social/Emotional:*** children's feelings about themselves, the development of responsibility, and their ability to relate positively to others.
- ***Cognitive:*** children's thinking skills, including the development of symbolic and problem-solving skills.
- ***Physical Development:*** children's gross (large muscle) and fine (small muscle) motor development.
- ***Self-help:*** children's capacity to take care of personal needs and acquiring independence in age-appropriate eating, toileting, dressing, and hygiene tasks.
- ***Communication and Literacy:*** children's ability to communicate through words, both spoken and written. (Source: Trister Dodge, et al., (2000). *Connecting Content, Teaching, and Learning*. Washington, DC: Teaching Strategies.).

Effective, quality programs for young children:

- Acknowledge and encourage each child's efforts.
- Model and demonstrate.
- Create challenges and support children in extending their capabilities.
- Provide specific directions and instruction.
- Organize the environment in ways to pursue educational goals for all children.

All of these strategies need to be used in the context of play and adult-directed activities in which children are actively engaged and responsive. Recognition must also be given to the fact that children learn from each other and from interactions with the physical environment.

Why have these foundations been written?

From kindergarten through twelfth grade, academic standards have been established to promote excellence and equity in education. Excellence is important in education today for future success. Academic standards represent the *essential content* every student needs in order to have a basis for understanding a subject area. Indiana's foundations to the academic standards include skills and experiences for children's development. The foundations to the standards address skills and competencies that children are to achieve from birth to age five. The foundations are not a comprehensive list of skills that a particular child must exhibit. They are a guide to assist young learners with knowledge and skills in the early years that will prepare them for success in school.

The Indiana academic standards and the foundations are frameworks instead of complete curricula. A curriculum is generally much richer with broader and deeper understandings than those in the standards or foundations. An early childhood curriculum is based on a philosophy of how children learn. It contains both content about what children should learn and methods about how to teach content. A framework helps provide knowledge and skills that children are to achieve at various ages, helps identify any gaps or points not being presented as essentials in the curriculum, and assists in planning experiences that will promote children's progress toward achieving the skills.

These foundations have been developed by individuals with expertise in each specialized area and have been based on the latest national research and findings for each content area. By outlining specific skills and concepts and giving examples of instructional strategies, these foundations to the standards will support teachers, parents, caregivers and other professional personnel as they develop appropriate experiences for young children. At the heart of the effort to promote quality early childhood experiences for all, foundations to the standards have been developed to support adults that work with children from birth to age five.

In developing the foundations to the standards, the collaborators took as their primary position the concept that a program designed for young children will be most effective when based on what is known **about** young children. These foundations are designed to assist all who work with young children in approaching the various domains from a developmentally appropriate perspective.

The skills and activities “lay the foundation” for accomplishment of the Indiana Academic Standards.

How to Use the Foundations for Young Children

The Indiana *Foundations for Young Children* address all the content areas: English/language arts, social studies, mathematics, science, physical education, health, and the arts. Each content section begins with an introduction, the key findings that support the Birth to Three and the Three to Five foundations. These foundations build upon one another and are aligned with the Indiana Academic Standards for kindergarten in a developmentally appropriate way. The foundations reflect the types of experiences and interactions early learners need to develop the foundation.

The term **young children** refers to any child, birth to age five, regardless of whether the child is in an early childhood setting or at home. The term **adult** refers to any adult who has interactions with the child whether the person is a teacher, caregiver, friend, family member, or other professional. The term **environment** refers to anywhere young children might be.

Each individual foundation is divided into sections.

- **YOUNG CHILDREN ARE LEARNING WHEN THEY:**

This section gives a description of skills that support development of the foundation. The skills or accomplishments are not written in particular order, either in importance or development. The skills in the Birth to Three Foundations are identified numerically as basic skills (e.g., B1 - Emerging Skills, B2 - Writing) in contrast to the skills in the Three to Five Foundations (e.g., F1 - Reading: Word Recognition, Fluency and Vocabulary Development, F2 - Reading: Reading Comprehension). Development of skills in one area is often related to and influences development in other areas. As such, skills may be repeated across foundations.

- **A CHILD CAN BE SUPPORTED BY AN ADULT WHO:**

This next section gives examples of many activities adults can do with children to support growth and learning in each area. Statements of the adult's role as a facilitator/teacher of learning for young children are included. Many of these contain suggestions for materials to include in the environment.

- **HOW IT LOOKS IN EVERYDAY ACTIVITIES:**

A variety of scenarios are given as examples of experiences children and adults may be doing that would address each foundation. Some scenarios are written in the classroom environment, some in the home environment, and some are outdoors. All activities planned by the child and the adult should reflect the needs and interests of the young learners involved. Along side each scenario is a list of related developmental skills from other domains children are working on while addressing the identified skill in the foundation.

The foundations and experiences are NOT inclusive but rather a guide that will assist the young learner in preparing for success. These skills are not written in any particular order and, because children grow and learn at different rates and in different ways, should NOT be used as a checklist.

Social-Emotional Development

How Do Positive Early Relationships Affect a Child's Development?

The importance of healthy emotional development in the first 5 years cannot be overstated. Simply put, emotional development provides the backbone for all other areas of development. Emotional well-being is often thought of as having two interrelated components: the attainment of emotional and behavioral regulation and the capacity for positive relationships. It is only when these two important capacities are present and functioning well that the young child can truly be said to be “ready to learn”.

Early in life, the baby relies on adults to provide the behavioral and emotional supports needed for physiological regulation to develop. Problems in regulation are shown in infancy through difficulties in sleep, feeding, and calming. Over time, young children gradually become more consistent in sleep and feeding schedules, showing the increasing skill in self-regulation that comes with maturity. For preschool children, problems in self-regulation are classically displayed as aggression. By the latter part of the second year of life, more sophisticated regulation skills, such as impulse control and frustration tolerance begin to emerge. Below are some of the skills through which young children demonstrate their growing capacity for self-regulation:

- Separates from familiar people
- Deals with fear and apprehension in acceptable ways
- Exhibits a positive attitude in approaching new challenges
- Attempts a variety of new gross/fine motor and sensory activities
- Tries difficult tasks
- Tries to solve own problems
- Expresses pleasure appropriately
- Expresses sadness appropriately
- Expresses anger appropriately
- Expresses disappointment appropriately
- Expresses discomfort appropriately
- Expresses appreciation appropriately
- Laughs appropriately
- Maintains appropriate intensity of emotions
- Expresses emotions appropriate for the context
- Indicates a need

Starting in infancy, supportive interactions with caring adults not only build a baby's ability to regulate his/her emotions but also help the baby learn how to have good relationships with others. Simple, everyday caregiving actions are needed to help babies attain both social and emotional competence. The parent who talks and plays with their baby in a sensitive way helps the baby's brain continue to grow and develop well into the second year of life. Teachers, early interventionists, and child care professionals who are sensitive and responsive to the child's experiences and needs also play a role in the development of social competence. Through responsive and nurturing caregiving, every adult can make a significant difference in the lives of babies and the adults they will become.

Below are some of the behaviors that demonstrate that young children are experiencing positive early relationships with adults and with peers:

- Responds attentively to familiar faces or voices
- Smiles for attention
- Recognizes when caregiver is not present
- Responds differently to strangers than a familiar family member
- Jointly attends to objects of interest to self
- Parallel plays with other children
- Recognizes others' feelings
- Helps and encourages others
- Gets along well with others

- Indicates a need
- Influences others' feelings and actions with positive behavior
- Demonstrates respect for the personal space of others
- Demonstrates respect for authority
- Accepts consequences of actions
- Works without disturbing others
- Expresses concern for others
- Helps and encourages others
- Helps an adult with a task
- Plays harmoniously with other children
- Interacts with a wide variety of individuals including other peers
- Shows preferences for particular peers or adults
- Follows directions
- Gets along well with others
- Imitates the actions of peers
- Expresses affection appropriately
- Desires to please another person
- Expresses concern for others
- Cares for other living things
- Introduces self
- Uses appropriate greetings
- Copies adult communication
- Demonstrates comfort in personal expression
- Engages in spontaneous conversation

In addition to social competence, “school readiness” starts in the cradle as early relationships have many consequences for later outcomes, both immediate and future. All aspects of social and emotional wellness are intertwined. A baby that has experienced positive relationships with caring adults is more alert, easier to calm, and sleeps and feeds well. Toddlers who have positive relationships are cooperative and can confidently explore and learn in many environments. As young children enter preschool and kindergarten, a foundation of positive relationships leads to better peer relationships, play skills, and ability to attend and benefit from classroom content. These benefits continue into later school years and even adulthood. Those who have experienced positive early relationships have advantages including better social, cognitive, and academic skills and avoiding risky behaviors, such as drug use, early pregnancy, and dropping out of school..

To complete the circle, adults who enjoyed early positive relationships as infants and young children are better prepared for parenthood. We now know that the seeds of positive early relationships start even before the baby is born. Astoundingly, the quality of the baby's relationship with his/her parents can be predicted from the parent's ways of thinking about relationships even before the baby is born. A parent who has experienced positive early relationships is more sensitive to their baby's needs and signals for help. As a result, the baby learns that interpersonal relationships are warm, loving, and satisfying. The baby feels secure knowing that her needs will be met and gains both a sense of effectiveness and a positive sense of self.

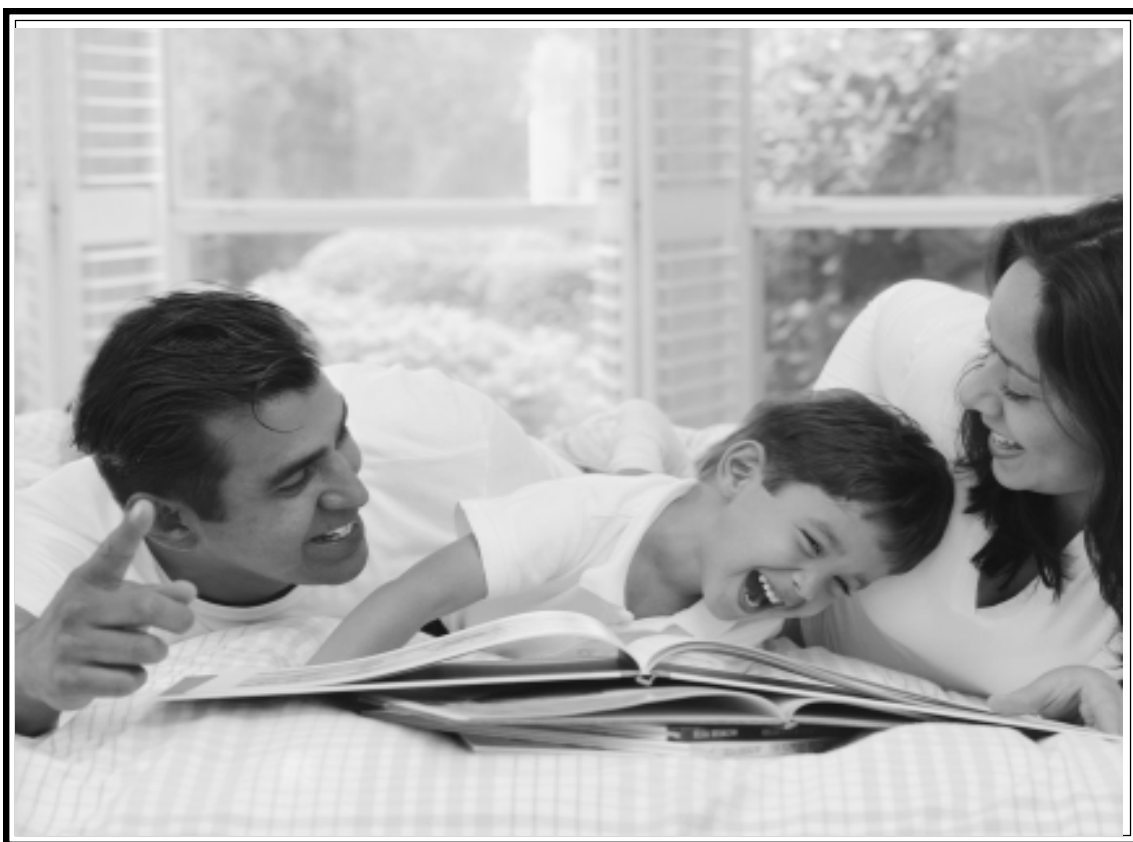
Success in core emotional skills of self-regulation and relationships leads children to develop positive feelings about themselves. Self-confidence, self-esteem, and a positive self- image are additional benefits of emotional well-being. Armed with this positive self-image gained children enter school prepared to succeed.

Below are some of the social and emotional competencies that help young children show their self-confidence and do well in their schools and communities:

- Follows schedules
- Practices self control in delaying gratification
- Completes task independently
- Shows enthusiasm for work and play
- Transitions from one activity to another
- Asks questions
- Accepts “no” comfortably
- Announces intentions

- Accepts compliments
- Identifies personal interests and hobbies
- Identifies personal achievements
- Identifies personal strengths
- Identifies personal weaknesses
- Shows enthusiasm for work and play
- Develops outlets for sharing personal interests and talents
- Attempts to develop new skills
- Varies from a model
- Incorporates fantasy into activities
- Uses a learned behavior in a new way
- Creates original products

As we read about the many developmental skills that young children need to be prepared for school, how these skills are demonstrated in everyday life, and especially how adults scaffold and support these skills, keep in mind the foundation for all of these wonderful accomplishments is positive early relationships. It has been said, “the first years last forever,” so let’s make these years the best they can be.



Adaptations for Exceptional Learners

We know that children learn at different rates and have varying abilities. Children bring different backgrounds and experiences into the learning environment, but when exceptional learners are in the early childhood environment, the range of differences in those learning rates and varying abilities increases. Exceptional learners are limited in their ability to progress without adaptations in their early childhood programs.

Who are Exceptional learners?

- Children with disabilities, developmental delays, or special needs.
- Children with specific intellectual, academic, or creative strengths.

What are Adaptations?

Adaptations are techniques and strategies designed to respond to a child's needs. Adults who recognize and appreciate the differences in children readily adapt instruction. Adapting instruction for exceptional learners is similar but more extensive and crucial for satisfactory progress to be made. Other terms for adaptations include modifications, accommodations, or differentiation.

Some children with mental or physical disabilities may need structured, teacher-assisted activities. Yet, children who are developmentally advanced need activities that encourage curiosity and independence. Rather than overprotecting or stifling exceptional learners, realize they are capable of taking an active part in activities and play. The role of the adult is to help the child learn acceptable ways to grow socially and academically.

The following teaching strategies and techniques are designed to help adults adapt activities or schedules for learners with varying needs.

- Sequence and Pace
- Child Preferences and Interests
- Special Equipment
- Peer Support
- Environmental Supports
- Materials
- Modify Activities
- Direct Adult Support
- Alternative Goals

Who Decides which Adaptations to Use?

Collaboration is very important when planning appropriate adaptations for children. Infants and toddlers with delays or disabilities, birth to age 3, may be enrolled in Indiana's First Steps Early Intervention

System (Part C). Within First Steps, child and family outcomes are stated in the Individualized Family Service Plan (IFSP). Beginning at age three years, children with disabilities may be eligible for special education and related services through the public schools. This type of program has learning goals that are stated in the child's Individualized Education Program (IEP). Enrollment in an early childhood program may be part of the special education services designed specifically for the child with a disability. In meeting the needs of infants and toddlers with disabilities, it is important that efforts be made to provide support to children and families where they live, learn and play, and where children without disabilities and their families participate. Likewise, preschool children with disabilities are to be educated with children without disabilities to the maximum extent appropriate.

To successfully meet the needs of exceptional learners, service providers and parents must plan the child's program together. Forming a collaborative relationship is essential for creating a successful learning environment. Such relationships require time for meetings, respect for others' educational philosophies, and support from the administration and personnel of programs serving young children and their families.

What are Some Effective Adaptation Strategies and Techniques?

Sequence and Pace

The adult may change the order in which activities occur, the amount of time allotted for the child to complete an activity, or the preparation for transition across activities.

- Create a predictable schedule.
- Provide additional time for children who need it to complete an activity or routine (e.g., getting dressed to go outside, eating snack).
- Provide alternate activities for a child finishing an activity (for example, snack) before others.
- Create a picture schedule to help children understand which activity or routine may occur next.
- Remind children before a transition and tell them which activity occurs next.

Child Preferences and Interests

The adult may use materials, toys, or a person for which a child has shown a special interest or preference to support active participation in activities or routines.

- Choose a topic or theme that is of special interest to the child (e.g., for a child who likes dinosaurs, have a few dinosaur books available during a book activity).

- Plan for a special or well-liked adult to lead an activity in which the child does not usually participate.
- Allow a child to select the activity in which he/she would like to participate, and introduce skills the child may need to learn during that activity (e.g., for a child who may be working on requesting, make sure the child uses the requesting skill in an art activity he/she has chosen).
- Adapt and create learning centers so that the concepts, ideas, and information are taught and reinforced in each of the multiple intelligences: linguistic, musical, logical-mathematical, visual-spatial, bodily-kinesthetic, interpersonal, intrapersonal, and naturalist.
- Provide opportunities for children to show their individual talents and interests.

Special Equipment

The adult may use adaptive devices or equipment for individual children.

- Use loop scissors or other adaptive scissors for a child who does not have the hand strength to cut with regular scissors.
- Use a bean bag chair or cube chair for a child in a wheelchair during circle time so that the child is on the same level as everyone else in the activity.
- Use adaptive spoons with built-up handles, nonskid surfaces under bowls or plates, and/or cups with cover tops or straws.
- Use a wagon in which two children (the non-walker, the slow walker or another child) can sit, with different children pulling the wagon each day for transitions involving walking long distances.

Peer Support

The adult may involve peers in encouraging children's active and appropriate participation in class activities.

- Use a variety of means to guide children in sharing and appreciating differences.
- Create an atmosphere enabling all children to get to know themselves and others.
- Support a child who is having difficulty by pairing the child with a peer who is successful in the task.
- Assign a buddy to help the child get in line or make transitions with the group.
- Praise appropriate behavior.
- Allow times for self-selection in groups based on interests, readiness level, and learning style.

Environmental Supports

The adult may adapt the flow of the room, activity areas, seating, and position options in ways that promote active participation.

- Arrange the classroom so that activity areas are clearly defined.
- Ensure that furniture is the appropriate size for children in the classroom.
- Place materials so that children can reach them independently.
- Make a quiet area available in the classroom (e.g., a place a child can go when feeling upset or overwhelmed and unable to handle behavior).
- Provide individual work spaces by using trays, box lids, placemats, etc., for children having difficulties keeping hands to self.
- Allow the child with a physical or mental disability an opportunity to use unfamiliar equipment in the classroom or playground ahead of time.
- Place pictures or symbols on shelves and containers to make cleaning up a matching game for children who have difficulty putting toys and equipment away.

Materials

The adult may modify materials and information so that the child can participate as independently as possible.

- Use picture cues, simplify language, or demonstrate instructions.
- Change or reduce the number of steps in a complex task.
- Provide a variety of materials at the sand table to allow for differences in ability to grasp and release.
- Lower the easel, give the child a chair, or buy/make a tabletop easel for the child who has difficulty standing.
- Tape wooden blocks to the pedals of a tricycle or big wheel for the child who has difficulty reaching the pedals.
- Wrap a piece of foam rubber (e.g., remove the foam rubber tubes on hair curlers) around the crayons or large pencils for the child who has difficulty grasping crayons.
- Use clamps or Velcro to attach the toy to a hard surface for the child who has difficulty using one hand.

- Glue a small piece of Styrofoam to each page making it simpler to turn pages.
- Use pictures and books that are bold and uncluttered for the child with visual impairment - high contrast colors in visual images are especially effective.
- Provide materials to promote higher level thinking such as sorting, classifying, sequencing, counting, and comparing and contrasting.
- Provide resources for activities that nurture and encourage gifted behaviors (e.g., puppets for performances).

Modify Activities

The adult may break a complex task into smaller parts, reduce the number of steps, adapt the skill level, or modify the rules of how the child approaches the activity. The adult may complicate a task by adding more parts or steps.

- Hand the pieces to the child one by one when the child is distracted by toys or puzzles with many pieces.
- Break activities such as cooking projects, craft projects, and table games into parts by describing or making pictures of the steps in clear terms: “First we do (x), then we do (y).”
- Respond to children’s interests by preparing craft activities with individual children in mind.
- Increase gradually the steps the child does independently.

Direct Adult Support

Adults may provide assistance in an activity or routine to support the child’s participation and learning. The amount of personal assistance provided will vary from child to child. Adults may model another way to play or expand on the child’s play or behavior.

- Provide hand-over-hand assistance for some activities.
- Observe children during play to identify interests.
- Position an adult near the child who runs in the hall or play area.
- Give the child full eye contact and a smile to reinforce on-task behavior.
- Redirect a child who is on the verge of losing control by changing the pace, adjusting activity, or just giving a gentle touch before the child’s behavior escalates.
- Provide a mentor for children with specific interests or talents.

Alternative Goals

Adults may adapt how the child can respond, including how much you expect the child to accomplish. Different goals and outcomes for children within the same learning activity can be identified.

- Allow children to respond to adults or activities in many different ways (e.g., present a block and a crayon to represent two different activities, and a child with cerebral palsy could indicate his choice using eye gaze or pointing).
- Embed gross motor skill practice in everyday routines.



Recommended Practices for Young Children Who Are English Language Learners (ELLs)

Young children come to us with varying experiences, backgrounds, and languages. Children whose home language is not English face the challenge of adapting to an early childhood setting that may not be consistent with their home culture and language. It is important for caregivers to assist young children in this transition through a respect for and acknowledgment of the language skills, knowledge, and culture that they bring with them to the early childhood setting.

The National Association for the Education of Young Children (NAEYC) states that caregivers can best meet the needs of children whose home language is not English by “preserving and respecting the diversity of the home language and culture that each child brings to the early learning setting” (NAEYC, 1995, p. 7). Most of the recommended practices for working with children who are English language learners are very similar to strategies encouraged in both early childhood education and special education and are simply techniques of good teaching.

It takes a long time to become fluent in any language, and children acquire English as a second language in different ways and at different rates. The difficulties in learning a second language should not be confused with a learning disability. Some children go through a “silent period,” for up to as long as six months, in which they do not speak, but are learning to understand English. Other children quickly attempt to communicate in English and may mix or combine English with their home language (for example, “Quiero juice.”). Some children may already be using simple phrases and appear fairly fluent. It is important to know that, even though a child is able to easily communicate with friends, research shows that it may take four or more years to become fluent in the cognitive language skills that are needed for academic learning (Cummins, 1981; Collier, 1989).

The following levels of English proficiency may help in setting appropriate expectations for individual children who are acquiring English as a second language. These levels should be used as a guide in understanding the language acquisition process.

- | | |
|-----------------|--|
| Level 1: | <i>Pre-production:</i> This is often referred to as the “silent period.” Children are learning to understand the language and may not speak at all. |
| Level 2: | <i>Early Production:</i> Children use single words or simple phrases to answer questions. |
| Level 3: | <i>Speech Emergence:</i> Children start to use simple sentences and correct grammar to verbalize information. |
| Level 4: | <i>Intermediate Fluency:</i> Children start to use more complex speech production and appear to be fluent. However, they may not have the vocabulary and grammar necessary to adequately express the concepts being learned. |
| Level 5: | <i>Fluent English Proficient:</i> Children are on par with their native English-speaking peers. |

While young children are in the process of learning English, it is important for adults to encourage the development of the child's home (native) language. Families transmit values, beliefs, and a sense of belonging to their children through their home language. Children also learn basic concepts necessary for later learning through everyday conversation and interactions when families continue to use the home language. Native language development will accelerate the acquisition of English. Encouraging families to speak to children in English at home, when family members may not be fluent English speakers themselves, can result in limited verbal interactions and modeling of incorrect language use. Families should be encouraged to speak and read to their children in the home language; children will learn English quickly from others in early childhood settings.

There are strategies that caregivers can use to help young children who are learning English feel comfortable in early childhood settings. Many of the following strategies are good techniques for use with all young children, particularly as they enter early childhood programs.

- Adults should speak clearly, use simple words, short phrases, and repetition and avoid the use of slang.
- Instead of correcting children's language, it is important to paraphrase and model correct use of English.
- Adults do not have to be bilingual to work with English language learners. However, it is helpful to learn a few words important to the child and his/her needs (such as words for food, for using the bathroom, and for family members).
- Caregivers can seek assistance and support from those with expertise in the language and the culture of the child, including family members, ESL providers, and others in the community.
- Adults who work with children learning English should use gestures, pictures, and real objects to help communicate with children.
- The many types of hands-on activities familiar to quality early childhood programs lend themselves to working with children who are not yet fluent in English. Children can express themselves through drawing, painting, using clay, and movement activities before they are able to use English to communicate.
- Caregivers should incorporate children's culture and language into activities whenever possible. Children will be more comfortable in an early childhood program if they can bring in pictures of their family, have favorite foods for snacks, use materials that are familiar to them in dramatic play, and hear their home language in the early childhood setting. Adults can play music in the child's language, have bilingual volunteers come in to read to the children in their home language, and ask families to tell stories in their home language on cassette tapes.
- Children should always be encouraged to speak with each other in their home language, as well as in English.

These techniques will make learning more meaningful and comprehensible to second language learners. Above all, it is important to be creative, open minded, sensitive, and familiar with the language acquisition process.

All children have different needs. As young children learn English, some will find it easier than others. Most teaching strategies that are encouraged in early childhood are already appropriate for young children learning a second language. It is not necessary to change the early childhood curriculum for children whose home language is not English, but it is important to support them in their efforts to communicate. Working closely with families, caregivers can create an environment for young children that respects their culture, encourages the development of their home language, and supports their English language learning.

Please contact the Division of Language Minority and Migrant Programs, Indiana Department of Education, at 800-382-9962 or 317-232-0555 for more information on working with English language learners.

Common Terms

- ELL:** English language learner: This term is used to identify a student who is learning English as a new or second language.
- LEP:** Limited English Proficient: This term identifies a student who is learning English as a new or second language.
- ESL:** English as a Second Language: This term is used to identify a course or type of service provided to ELL/LEP students.
- ENL:** English as a New Language: This term means the same thing as ESL.
- FEP:** Fluent English Proficient: This term identifies a student whose native language is other than English but is now fluent in English (level 5).
- Bilingual Education:** A program in which two languages are used in content area instruction.
- Home language:** The dominant language spoken in the home.
- Native language:** The first language of the student.
- Dominant language:** The language(s) in which the individual is most fluent.
- Sheltered instruction:** Teaching techniques and strategies that make the lesson more comprehensible for English language learners.

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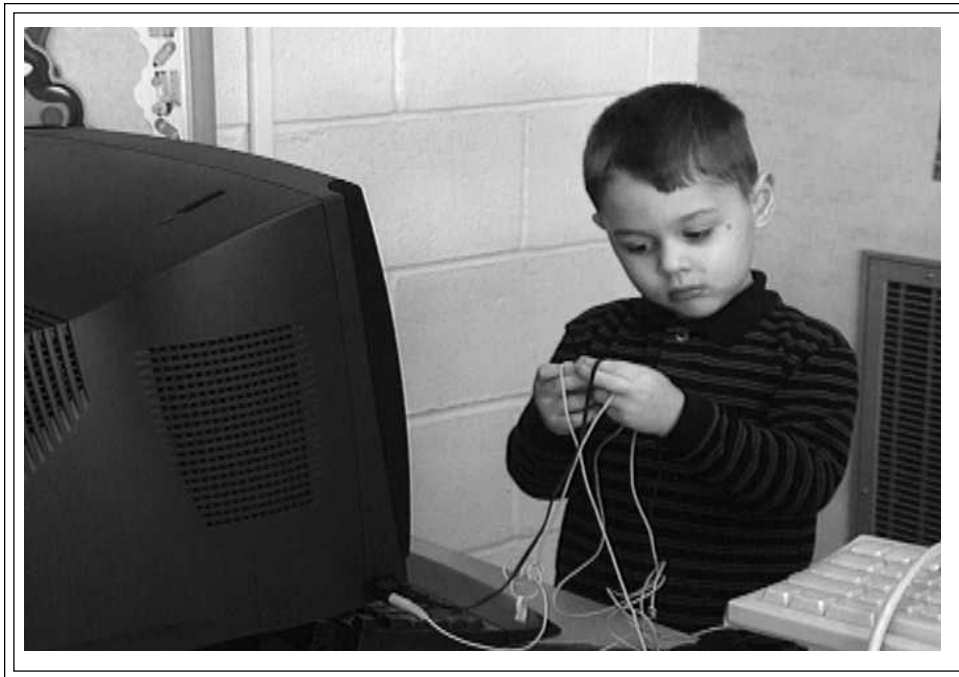
TECHNOLOGY FOR YOUNG CHILDREN

Access to and the use of information are important skills necessary for the future. To be successful in the future, young children will need to be knowledgeable, productive, independent, creative thinkers in a technology-based society. All adults working with children share the responsibility for providing programs that appropriately support each child's technological learning and development.

Appropriate technology tools are integrated into the environment and used to enhance learning for all children. For example, a child who cannot hold or manipulate a writing tool may be able to design drawings with elements in specific software programs.

The child's own interests and abilities should drive the decisions concerning the type of technology tools that are appropriate for the child. These tools should help children construct their own knowledge through open-ended, discovery-based activities. It is important to remember that the computer is only one of the many technology tools available. Young children can use cameras and scanners, measuring devices, and audio and video equipment to explore their worlds.

The following pages include a copy of *Media Guidelines for Parents* from the American Academy of Pediatrics (also available at www.aap.org) and two of the National Association for the Education of Young Children's (NAEYC) *Early Years are Learning Years* information sheets for adults who work with young children. Information on a variety of topics of interest to parents and educators is available on the NAEYC Website: www.naeyc.org.



Media Guidelines for Parents

Just as a print-literate child learns to be critical of the things he reads, he should also be able to do the same with moving pictures and sounds. Your child can learn to understand both the obvious and hidden messages in all media. Once children learn media education skills, they will begin to ask questions and think about the media messages they watch, read, and hear. And they usually will enjoy doing it.

Following are basic media education points your child should know:

People create media messages.

Any media message, whether it's a magazine article or a TV talk show, is created by a team of people. Those people write it, decide what pictures to use, and what to leave out. All of these things give the message a purpose. Each media form uses its own language. For example, newspapers make headlines large to attract readers to certain stories.

Media with sound may use music to make people feel a range of emotions.

When children learn about these techniques, they are able to understand how a message is delivered instead of only being affected by it. No two people experience the same media message in exactly the same way. How a person interprets a message depends on things unique to that person's life. These can include age, values, memories and education.

Media messages have their own values and points of view.

These are built into the message itself. Children should compare the promoted values against their own values. It is important for children to learn that they have a choice in whether to accept the values that are being promoted in any media message.

You can use these lessons as part of your everyday life. Besides asking how and why media messages are created, children of various ages can do everyday activities with you or other adults to help build media education skills. Make a game out of the following:

- Play "Spot the Commercials." Help your child learn to tell the difference between a regular program and the commercials that support it. This may be tricky during children's shows because many commercials advertise toys based on TV characters.
- Do a taste test to compare a heavily advertised brand with a generic or other nonadvertised brand. Try products such as cereals or soft drinks. See whether your child and his friends can tell the difference and whether advertising influenced their guesses.

- Look at the headlines, photos and placements of articles in a newspaper. How do these affect which stories your child wants to read? Read a few stories and compare their content with their headlines and photos.
- When you see a movie, video, or video game with your child, talk about whether what happens on screen would happen in the “real” world. For example, would a person really be able to drive a car super fast, down narrow streets, without crashing?
- While shopping, compare products with advertisements your child has seen. Look at the ingredients, label, or packaging. Is any of this information in the ad? Does the ad give any specific information about the product itself? How is the product different than it seemed from the ad or packaging?
- How many brands of beer, cigarettes, or other such products can your child name? If he can name even one, this is a great way to begin talking about the power of advertising. Discuss the health risks of using these products, and how the ads leave out that information.
- Watch a music video with your child. What stories are the pictures telling? Does the story on screen match the meaning of the words in the song? How does the video make your child feel? Can your child note any stereotypical, violent, or sexual images in the video? Is there any tobacco, alcohol, or drug use? Watch a music video with the sound off and see how it is different.

Starting when children are very young, most of their media use takes place in the home. This is a great opportunity for you to establish good viewing habits and to begin the process of media education. You can help your children make better use of media by doing the following:

- Make a media plan. Schedule media times and choices in advance, just as you would other activities. A media plan helps everyone to choose and use media carefully.
- Set media time limits. Limit children’s total screen time. This includes time watching TV and videotapes, playing video and computer games, and surfing the Internet. One way to do this is to use a timer. When the timer goes off, your child’s media time is up, no exceptions. The American Academy of Pediatrics recommends no more than one to two hours of quality TV and videos a day for older children and no screen time for children under the age of 2.
- Set family guidelines for media content. Help children and teens choose shows, videos, and video games that are appropriate for their ages and interests. Get into the habit of checking the content ratings and parental advisories for all media. Use these ratings to decide what media are suitable for your child.

- Be clear and consistent with children about media rules. If you do not approve of their media choice, explain why and help them choose something more appropriate.
- Keep TV sets, VCRs, video games, and computers out of children's bedrooms. Instead, put them where you can be involved and monitor children's use. If children or teens are allowed to have a TV set or other media in their bedrooms, know what media they are using and supervise their media choices. If you have Internet access, supervise your children while they are on-line.
- Make media a family activity. Whenever possible, use media with your children and discuss what they see, hear, and read. When you share your children's media experiences, you can help them analyze, question, and challenge the meaning of messages for themselves. During a media activity, help children "talk back," or question what they see. Do this during a violent act, an image or message that is misleading, or an advertisement for an unhealthy product.
- "Talking back," or asking questions about media messages, builds the lifelong skills your child needs to be a critical media consumer. Discuss how the media messages compare with the values you are teaching your child.
- Look for media "side effects." Unless they come clearly labeled as containing violence, sex, or graphic language, parents often overlook the messages children are getting from media. Instead, be aware of the media children and teens use and the impact it could be having. This is especially important if your child shows any of the following behaviors:
 - Poor school performance
 - Hitting or pushing other kids often
 - Aggressively talking back to adults
 - Frequent nightmares
 - Increased eating of unhealthy foods
 - Smoking, drinking, or drug use

Talk to your child's pediatrician about any behavior that is a concern. Your pediatrician may take a media history of your child. This can help uncover whether certain behavioral problems exist or could develop based on how much and what kind of media your child uses. If there are problems, or you think they could develop, work with your child to change his media use.

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early years are learning years

Technology and young children: What parents should know

It is not unusual to see a young child today slip a CD into a stereo system, set a digital alarm clock, or even program a VCR. Children quickly learn to use technology that is part of their daily lives, often with greater ease than their parents or other adults. But does their ability to do these complex tasks really enhance children's development? Does using technology really teach children new skills? What should parents know about the role of technology in children's learning?

According to NAEYC's *Young Children: Active Learners in a Technological Age*, computers can be active or passive agents for learning. Parents who recognize the difference will choose appropriate computer programs for their children.

As passive users, children utilize tools with no understanding of the concepts represented on the screen. The computer becomes an electronic worksheet that asks children to memorize without comprehending.

As active agents for learning, computers extend children's abilities, helping them to accomplish goals and objectives. In active use, children understand the relationship between real ideas and what is being represented on the screen. Constructing relationships between pictures and concrete objects helps children establish meaning.

In order to promote effective computer learning, parents should monitor the quality of the software children use, the amount of time children work with it, and the way in which they use it.

What should you teach your pre-school children about technology? Here are some suggestions:

❑ People control technology, and technology can be used for activities that are meaningful to people.

❑ Technology can take different forms, as in calculators, telephones, and tape recorders. It provides different, useful things in a variety of ways.

❑ Technology has rules that control how it works. Objects must have a source of power—they have plugs or batteries; computers must have instructions—either built-in or provided by the user.

❑ Computer programs require different ways of organizing thinking. Some will ask you to match and rhyme, others will give you the freedom to draw or paint whatever you wish.

Some parents express concerns about the role of technology in children's lives, such as how it will affect children's attention to social relationships and other activities. Appropriate computer programs promote dialog between children, as well as group problem-solving. They also offer opportunities for shared experiences between parents and children. As partners in our children's learning, we may not only monitor their educational environments, but we may experience their progress first-hand.

Checking out good software for children:

1 Software uses pictures and spoken instructions rather than written ones so that children will not need to ask for help.

2 Children control the level of difficulty, the pace, and direction of the program.

3 Software offers variety: children can explore a number of topics on different levels.

4 Children receive quick feedback so they stay interested.

5 Program utilizes the capacities of today's computers by appealing to children through interesting sights and sounds.

6 To determine a product's appropriateness for a child's current level of development, parents have evaluated the skill list and activities as described on the package, and previewed the product through store demonstration or a friend's computer.

7 Software engages children's interest by encouraging children to laugh and use their imagination in exploring.

8 The program allows children to experience success and feel empowered through learning.

Resources:

Wright, J. L. & D.D. Shade, *Young children: Active learners in a technological age*. NAEYC #341/\$7.

The adventure begins: *Preschool and technology*. NAEYC video series. #827/\$20.



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early years are learning years

Technology in early childhood programs

As technology becomes more accessible to early childhood programs and computer software becomes more user-friendly, early childhood educators have a responsibility to examine its impact on children and prepare themselves to use it for all children's benefit. Here are some tips for professionals in evaluating computer programs, which can be used—like any other learning tool—in developmentally appropriate or inappropriate ways.

1. Early childhood professionals must apply the principles of developmentally appropriate practice and appropriate curriculum and assessment when choosing technology for use in their classrooms or programs.

Even technological learning tools must be appropriate for the age and experience of children in a particular group. Software that is little more than an electronic worksheet does little to increase children's understanding of concepts.

2. Used appropriately, technology can improve children's thinking ability and help them develop good relationships with peers.

Developmentally appropriate software engages children in conversation and creative play. It also helps develop children's problem-solving abilities. Ideally, computer software should be designed to grow with children, offering more challenges as they learn new skills.

3. Technology should be integrated into daily learning activities.

Computers should not replace or

disrupt existing program routines. This can be accomplished by locating computers in the classroom rather than in a separate lab. Teachers can choose software to further enrich the everyday curriculum and bridge the gaps between different subjects, like music and math.

4. Teachers should work for equity in access to technology for all children and their families.

Research has found that girls use computers in and out of school less often than boys do; African American students have less access to computers than White students; and richer schools buy more equipment and more expensive equipment (Sutton, 1991). If educators do not work to provide access to technology for all children, the gaps in children's ability and familiarity with technology will widen.

Technology has many potential benefits for children with special needs and may be essential for successful inclusion. Software may function as an "on-demand" tutor, meeting children's individual needs, learning styles, and preferences. And, when used appropriately, it may encourage and enable all children to think and work independently.

5. Technology has a powerful influence over children's learning—it must not teach them to stereotype or use violence to solve their problems.

Software can reflect children's diverse cultures, languages, and ethnic heritages; it should depict the world children live in and encourage them to appreciate diversity. Teachers and caregivers are challenged to discover software programs that promote positive

social values and encourage tolerance and exploration of the richness in their own and other cultures.

Beware of violence and brutality in today's software, which often mirrors that of movies and TV. It is even more disturbing when destruction is used as a means of solving problems in computer software, because the software allows children to cause violence themselves, rather than just witness it on the screen. Software that allows children to destroy without facing actual consequences may hinder them from learning personal responsibility.

6. Work together with parents to promote appropriate uses of technology.

Early childhood professionals and parents both have a responsibility to educate themselves on the benefits of technology for children's education. Yet they must also make smart choices as consumers and inform software developers when they are unhappy or happy with products. Together, parents and professionals can advocate for software that encourages cooperation among children, caters to the needs of children with varying abilities, reflects productive and nonviolent ways of solving problems, and offers positive representations of gender, cultural and linguistic diversity, and physical abilities.

To receive a copy of NAEYC's position statement on Technology and Young Children, Ages 3 through 8, see the September, 1996 issue of Young Children, or send a SASE to NAEYC Public Affairs, Box #602, 1509 16th St., NW, Washington, DC 20036-1426.



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Birth to Three Years -Infant and Toddler- Basic Foundations

ENGLISH LANGUAGE ARTS
BIRTH TO THREE

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BIRTH TO THREE

BASIC FOUNDATIONS FOR ENGLISH LANGUAGE ARTS

Perhaps the most significant accomplishment a child makes during the first three years of life is acquiring language and using it to communicate. Infants first begin to communicate through crying, body movements, gestures, and facial expressions. As babies grow into toddlers and preschoolers, they attain a vocabulary of hundreds of words, and they learn how to use them to get what they need or want, express their feelings, or simply to make conversation.

While children do have the predisposition to learn languages, this does not happen in a vacuum. Adults play a vital and irreplaceable role in a young child's speech development and literacy knowledge. Frequent interactions with young children, as well as providing opportunities to use (and witness the use of) written language in daily life, enable children to become competent readers, writers, speakers, and listeners.

Young children must have the opportunity to do more than simply "learn to read and write," they need adults who provide experiences that make literacy enjoyable. A child should develop skills but should also have the disposition to become a reader and writer. They must desire books. They must love words. Adults can help make this happen by making language pleasurable through reading aloud, singing songs, reciting playful poetry, and purposefully expose language for what it is – an important and enjoyable part of our world.

Research has demonstrated that children with foundational skills of familiarity with print and books, the purposes of writing, and listening and speaking will be ready to benefit from reading instruction in school, learn to read sooner, and will be better readers than children with fewer of these skills (Strickland & Morrow, 2000; Whitehurst & Longman, 1998).



KEY FINDINGS

- ♦ Adults who live and interact regularly with children can profoundly influence the quality and quantity of their literacy experiences. *[National Research Council, 1998]*
- ♦ The early childhood years—from birth through age eight—are the most important period for literacy development. *[Newman, S.B., Copple, C. & Bredekamp, S., 1999]*
- ♦ During the infant and toddler years, children need relationships with caring adults who engage in many one-on-one, face-to-face interactions with them to support their oral language development and lay the foundation for later literacy acquisition. *[Newman, S.B., Copple, C. & Bredekamp, S., 1999]*
- ♦ Toddlers and preschoolers are able to learn new words at a phenomenal rate, provided that they are in a language-rich setting in which adults read and talk with them and in which they are able to talk and play with other children. *[Newman, S.B., Copple, C. & Bredekamp, S., 1999]*
- ♦ Promoting literacy at home does not mean creating an academic setting and formally teaching children. Parents and caregivers can take advantage of opportunities that arise in daily life to help their children develop language and literacy. *[National Research Council, 1999]*
- ♦ Young children can begin to understand that print is everywhere in the world around them, and that reading and writing are ways for them to get ideas, information, and knowledge. *[National Research Council, 1999]*
- ♦ Children need to feel positive about reading and literacy experiences. *[National Research Council, 1999]*
- ♦ Children engaged in language and literacy activities appear mostly playful and exploratory, although in fact they are hard at work as scholars of language and literacy. *[National Research Council, 1999]*
- ♦ Reading aloud to children has been called the single most important activity for building the knowledge required for success in reading. *[Partnership for Reading, 2003]*
- ♦ Very early, children begin to learn about spoken language when they hear their family members talking, laughing, and singing, and when they respond to all of the sounds that fill their world. *[Partnership for Reading, 2003]*
- ♦ Children begin to understand written language when they hear adults read stories to them and see adults reading newspapers, magazines, and books for themselves. *[Partnership for Reading, 2003]*
- ♦ Because written language plays a central role in the daily workings of our world, children become aware of its significance very early in life. *[Owcocki, 2001]*
- ♦ Children are born with a predisposition to acquire language, but in order for that language to develop to its potential, the child must have the opportunity to speak, listen, read, and write in meaningful contexts with adults and peers. *[National Research Council, 1999]*

ENGLISH LANGUAGE ARTS BASIC FOUNDATION 1

B.1 - Emerging Reading

Familiarity with Print and Books

A child begins on the journey to reading on the day he/she is born. The choices an adult makes from this day on determine whether the child will achieve success as a reader in future years. There is a continual connection between early language development and learning to read. To help promote early reading development, adults should provide many pleasurable experiences with books and other reading materials.

Young children are learning when they:

- B.1.1 Track movement.
- B.1.2 Open a book.
- B.1.3 Explore a book.
- B.1.4 Point to pictures in a picture book.
- B.1.5 Emulate sounds in the environment (e.g., animal, motor).
- B.1.6 React to a story or event.
- B.1.7 React to new situations based on the memory of a previous event.
- B.1.8 Recognize when a caregiver is not present.
- B.1.9 Show affection to a caregiver, character, or plaything.
- B.1.10 Turn several pages of a book at a time.
- B.1.11 Look at books for one minute.
- B.1.12 Visually engage with a book.
- B.1.13 Pretend to read a book aloud.
- B.1.14 Match pictures to actual objects.
- B.1.15 Distinguish print from pictures.
- B.1.16 Point to a letter when asked to “point to a letter.”
- B.1.17 Actively attend to things that an adult is showing.
- B.1.18 Enjoy looking at books.
- B.1.19 Find named pictures or textures in book.
- B.1.20 Anticipate actions, sounds, or phrases from a predictable story.
- B.1.21 Recognize pictures of family members.
- B.1.22 Name actions from pictures or a story.
- B.1.23 Identify where he/she is currently located.
- B.1.24 Recognize a favorite character.
- B.1.25 Pretend to do something or be someone.

A child can be supported by an adult who:

- Creates a daily reading routine, whether it is before bedtime, after lunch, or in the morning.
- Changes the tone of voice when reading to show emotion and excitement.
- Provides the child with books that are manipulative, with interactive features such as sounds or textures, and that can be explored with the child’s mouth.
- Provides the child with books that have interesting language, rhythm, and sounds.
- Provides child with books with predictable patterns and repeated language.
- Points to words, letters, labels, and reads or names them.
- Asks the child to follow simple requests while looking at a book (e.g., point to the cow).
- Shows children that we read print moving left to right and top to bottom.
- Helps the child to recognize and write name if initiated by the child.
- Exposes the child to rhymes and poems such as nursery rhymes and finger plays.
- Attends to and encourages young child vocalizations and communicative gestures.
- Take turns “talking” with the child.
- Reads some books over and over again and encourages the toddler to join in with the words he knows. Toddlers like to hear the same story many times.
- Encourages the child to reenact a story through play.
- Limits television viewing and watches appropriate shows with a child aged 2-3.

How it looks in everyday activities:

Dinner is over and bath time is almost finished. Dad bundles his wiggling son in a towel and heads for his bedroom. “No sleep, NO SLEEP,” he protests. “I want MOMMY!” “Mommy’s working, but she’ll be home soon,” says Dad. “Time to get your jammies on so we can read our bedtime book,” Dad sighed with relief as this bedtime routine works its magic in calming his child.

Settling in for the story, the toddler picks up his copy of Owl Babies. “Great!” says Dad. “Let’s read and see when the mommy owl comes home.” After the toddler snuggles up on Dad’s lap, Dad and son look at the pictures of the snowy owls. The son points to his favorite character, “Little Bill.” Listening intently, the little boy waits in anticipation for the picture of Mother Owl. Together, Dad and son cry “and she came!!” when the mother owl flies back to the nest.

“See!” Dad says, “Mommies do come back!”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- The child follows a routine.

Communication/Literacy:

- Listens intently and responds verbally to a book being read.

ENGLISH LANGUAGE ARTS BASIC FOUNDATION 2

B.2 - Writing

Early Efforts to Write

Children make their first artistic gestures and attempts at writing the first time they flail their hands in the air. Infants and toddlers use these experimentations as well as large motions, a variety of materials and differing levels of intent to develop in the area of writing. Children need to experiment with a variety of “writing” techniques such as scribbling, drawing, and finally developing actual writing skills. To enhance the development of writing skills, adults should promote the child’s experimentation and effort rather than the finished product and allow them to use materials in their own creative manner.

Young children are learning when they:

- B.2.1 Track movement.
- B.2.2 Use eye gaze to communicate.
- B.2.3 Use proximity to communicate.
- B.2.4 Use gestures to communicate.
- B.2.5 Show affection for an imaginary character or plaything.
- B.2.6 Use symbols or objects to communicate.
- B.2.7 Imitate sounds in environment (e.g., animal, motor).
- B.2.8 Grasp tools.
- B.2.9 Intentionally make marks in substances.
- B.2.10 Engage someone else to record ideas in words, drawings, or symbols.
- B.2.11 Listen to others tell about their writing.
- B.2.12 Recognize a favorite character.
- B.2.13 Attempt to write and draw.
- B.2.14 Use drawings or pictures to represent objects.
- B.2.15 Scribble a message on a card or picture.
- B.2.16 Make marks with writing tools.
- B.2.17 Mark on paper rather than other surfaces.
- B.2.18 Imitate drawing a vertical line.
- B.2.19 Imitate drawing a horizontal line.
- B.2.20 Imitate drawing a circle.
- B.2.21 Associate writing with sounds.

A child can be supported by an adult who:

- Provides many activities that foster the development of fine motor skills and strength such as rattles, finger plays, use of tools, play dough, scissors, stringing beads, lacing and manipulation of small items.
- Provides developmentally appropriate and adaptive writing and drawing materials for children of different ability levels such as large crayons or pencils.
- Models writing in front of their children through everyday situations, such as making a grocery list, writing down a recipe, or writing a thank-you note.
- Writes, displays, and points out children’s names often.
- Labels objects and areas in the child’s setting.
- Is responsive to children who seek help in their attempt to write and draw.
- Writes down toddler stories and labels their drawings.
- Prompts the child to “tell me more” to encourage extensions of the child’s picture or writing.
- Displays children’s drawing, scribbling, or writing efforts at the children’s eye level and rotates the items frequently.
- Does not try to interpret the child’s work or criticize it.

How it looks in everyday activities:

Mrs. Adams carries her crying daughter Emma, aged 2 ½, into the home child care setting. Ms. Janie greets Emma, who is holding her mother's coat and repeating, "Want to go home." Ms. Janie wonders where Emma's usual smile and hugs have gone and asks Mrs. Adams what led to the tough morning. Mrs. Adams replies, "Well, Daddy is out of town and then we had guests over last night, so we got to bed a little later than usual."

Mrs. Adams says, "Honey, Mommy will see you later after nap and snack. And then we will go to the airport and get Daddy." She passes the still crying Emma to Ms. Janie who starts trying to distract her with toys. Emma sniffles as she refuses many things she usually likes. Ms. Janie thinks and then says, "You miss Daddy, don't you?" Emma nods her head sadly. "I wonder if you would like to write him a letter?" asks Ms. Janie. Emma sits at the table and tells Ms. Janie to write "Miss Daddy. Love you Daddy" on the paper. She colors on the paper, saying it is a picture of Daddy. Soon the paper is finished and waiting in the cubby for Daddy, and Emma joins some friends working puzzles with her usual smile.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Experiences difficulty separating from mother; child receives hug; child verbalizes feelings.

Communication/Literacy:

- Verbalizes message to be included in the letter; draws a corresponding picture to the letter.

Physical:

- Uses writing tools that build muscle control and strength.

ENGLISH LANGUAGE ARTS BASIC FOUNDATION 3

B.3 - Listening and Speaking

Listening with Understanding and Communicating Through Speaking and Other Forms of Communication

The process of acquiring language is complex. During the infant and toddler years, children need relationships with caring adults who engage in many one-on-one, face-to-face interactions with them to support their oral language development and lay the foundation for later literacy acquisition (Newman, S.B., Copple, C. & Bredekamp, S., 2000). Children learn to communicate long before they speak. Babies are big communicators. They use sounds, gestures, and facial expressions to communicate what they want and need. The caregiver or parent can facilitate communication by being attentive to an infant's signals such as babbling and cooing. Their speech development is facilitated by an encouraging partner who responds to their beginning communications, repeats their sounds, offers sounds for them to imitate, and explains events to the infant while they are taking place. As the toddler grows and develops, there is a wide range of normal language development during this time. Adults can communicate actively with toddlers by modeling good speech, listening to them carefully, making use of and expanding on what they say, and helping them with new words and phrases.

Young children are learning when they:

- B.3.1 Vocalize while looking at a book.
- B.3.2 Use eye gaze, proximity, and gestures to communicate.
- B.3.3 Respond to arrival of a familiar person.
- B.3.4 Smile or laugh when looked at or spoken to.
- B.3.5 Respond to own name, words, or short phrases (e.g., "Stop!" "Where's Mommy?").
- B.3.6 Imitate one-word vocalization.
- B.3.7 Vary pitch, length, and volume of vocalizations to express wants and needs.
- B.3.8 Use jargon (expressive sounds) in conversational manner.
- B.3.9 Give an object when asked.
- B.3.10 Engage in turn-taking vocalizations.
- B.3.11 Jointly attend to object of interest to self.
- B.3.12 Jointly attend to pictures and books for several minutes.
- B.3.13 Find named pictures or textures in book.
- B.3.14 Shift attention along with communication partner.
- B.3.15 Use action words.
- B.3.16 Actively attend to things an adult is showing.
- B.3.17 Follow simple directions with prompts.
- B.3.18 Use appropriate intonations for questions.
- B.3.19 Use two-word vocalizations, signs, symbols, or gestures to tell about objects or events in the present.

A child can be supported by an adult who:

- Reads and responds to the child's cues.
- Maintains eye contact.
- Imitates child's sounds and gestures.
- Matches facial expressions to the tone of the voice.
- Varies tone of voice and level of voice.
- Varies gestures and facial expressions.
- Utilizes routines such as diapering, feeding, etc., to talk to the child about what is being done.
- Repeats phrases over and over.
- Provides opportunity to listen to sounds in the environment.
- Uses child's name frequently.
- Keeps language simple.
- Initiates games, such as the echo game or word games.
- Points to objects being talked about.
- Uses descriptive words.
- Places familiar pictures where children can see them.
- Has and reads books with repetition.
- Gives one-step directions (e.g., "show me your nose" or "give me a diaper").
- Interprets and gives names to child's emotions.
- Repeats and expands on what child says.
- Uses all forms of nonverbal communication when speaking to a child.
- Reads rhymes with interesting sounds, especially those accompanied by actions or pictures.

How it looks in everyday activities:

Mrs. Hinkley smiles at her 10-month old son James as she carefully buckles him into his car seat for a trip to the grocery store. She talks to him while she checks the straps, telling him every step. Mr. and Mrs. Hinkley sit in front and review the grocery list on the way to the store.

James shakes a toy and vocalizes, “Da-da-dad-da!” He pauses briefly, as Mrs. Hinkley looks back at him and repeats “Da-da-da-da!” James smiles a big smile. Mr. Hinkley looks at James in the rear view mirror and takes his turn with the phrase. Then, James repeats his sounds, again pausing afterward with an expectant look. Mrs. Hinkley takes her turn, but Mr. Hinkley is busy looking for a parking spot and does not reply immediately. James waits a moment then says “Da!” Mrs. Hinkley nudges her husband, who smiles a smile as big as his son’s and loudly says, “Da-da-dad-da!” James smiles back, and the echo game continues as the family enters the store.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Develops a close, trusting relationship with parents; enjoys playing with parents.

Communication/Literacy:

- Responds to an adult’s language and repeats adult language.

Cognitive:

- Makes connections about what’s next; learns that sounds have a purpose.

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MATHEMATICS
BIRTH TO THREE

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BASIC FOUNDATIONS FOR MATHEMATICS

During the early years of life, young children begin to explore their world, a world that relies on mathematical concepts to build a foundation for further learning. They begin to compare quantities, find patterns in various objects, move through their environment, and initiate problem solving.

Mathematics helps children survey their environment and start to form a sense of order. This beginning sense of order is of primary importance in constructing a solid foundation for future success. Children's math development is nourished by everyday play activities and exploration of the world around them. It is important for adults to support young children's learning and play, answer their questions, take care of their physical needs, and encourage their natural curiosity in order to lay the foundations for later success.

Adults can support the development of mathematics by incorporating math into everyday activities. Mathematics is more than counting and recognizing numbers. It involves learning about heavy and light, big and small, and long and short. Math also involves learning about shapes (circle, square, rectangle), recognizing patterns (blue-yellow-blue-yellow) and comparing (which is more and which is less). Using math words around young children helps them begin to understand math concepts. Math must be connected to children's lives. There is no need to drill children with flashcards or do worksheets or programs of direct instruction to get them to learn math. When children learn math in contrived situations rather than meaningful learning through routine activities that are connected with their lives, the results will be rote learning without understanding. This does not promote the "spirit of mathematics." There are many opportunities for "math talk" as you go through the day.

Adults that are involved in the lives of very young children need to be familiar with the social, emotional, and motor development of infants and toddlers. It is vitally important that families and caregivers be sensitive to the emotional development and level of tolerance and persistence in young children. Every child learns at their own pace, and families and caregivers must understand that concentrating on a prescriptive level of skill development instead of intimate awareness of a child's level of learning does not equate with long-term success built on a solid foundation of knowledge. It is better to proceed slowly and keep their interest than to push too hard.

Providing daily opportunities for problem solving, reasoning, communication, connections, and representation make it possible for young children to learn the content of math. These processes develop over time with the help of adults who connect math to everyday activities. Connecting mathematics to other areas of learning such as music, art, and science also enhances both mathematical concepts and the additional subject. In communicating and working with young children to enhance their knowledge of mathematics, the most important attribute an adult can bring with their solid foundation of skills is a positive disposition. A positive attitude toward mathematics and mathematical learning begins in early childhood.

KEY FINDINGS

- ♦ Infants and toddlers have a natural interest in mathematics and use it to make sense of their physical and social worlds. In play and daily activities, they explore and play by sorting, comparing, and noticing the different shapes in their world. *[Geist E., 2003]*
- ♦ Recognizing and building on a child's experiences are most effective in enhancing mathematics in early childhood. Young children learn best when families and caregivers focus on the child's strengths and learning styles. *[Bredekamp, S., & Copple, C., 1997]*
- ♦ Families and caregivers need to explore and learn what children already know and help them to understand their knowledge as it relates to mathematics. They can provide multiple opportunities for infants and toddlers to organize, quantify, generalize, and refine those concepts that they, in the beginning, grasp only at an experimental or intuitive level. *[Geist, E. 2001]*
- ♦ It is important that infants and toddlers have experiences with known relationships and sequences of mathematical ideas. *[Geist, E., 2003]*
- ♦ Effective learning experiences are intentionally organized and build on a child's understanding over time. Focused exploration is a primary method by which children build on knowledge and learn new concepts. Young children should be provided with time, materials to manipulate, and an environment to explore to develop a keen interest and love of learning. *[Bredekamp, S., & Copple, C., 1997]*
- ♦ Mathematical concepts should be woven into the daily experiences of a young child's natural routines. Intentional weaving of mathematical concepts into literature, language development, science, social studies, art, movement, and music enhances all areas of learning. *[Lally, J., Griffin, A., Fenichel, E., Segal, M., Szanton, E., Weissbourd, B., 1995]*



MATHEMATICS BASIC FOUNDATION 1

B.1 - Number Sense

Counting and Number Concepts

Learning the meaning of numbers is more than counting. It involves the ability to think and work with numbers and understand their relationships and the different uses for numbers. Counting is a foundation for children's early work with numbers. Counting a wide variety of objects is helpful in order for children to appreciate the breadth of the application of counting skills. Children enjoy practicing counting games from the time they learn to talk. Infants and toddlers learn the meaning of numbers in everyday experiences the adult provides.

Young children are learning when they:

- B.1.1 Repeat a movement like a clap.
- B.1.2 Touch one object.
- B.1.3 Give an object when asked.
- B.1.4 Repeat number words.
- B.1.5 Count 1.
- B.1.6 Select the preferred item when given two choices.
- B.1.7 Communicate when something is empty or "all gone."
- B.1.8 Indicate a desire for more.
- B.1.9 Clap or moves to a beat.
- B.1.10 Touch in sequence, one at a time
- B.1.11 Use fingers to show how many or age of self.
- B.1.12 Use whole numbers up to 3 to describe objects and experiences.
- B.1.13 Rote count to 3.
- B.1.14 Match like numerals.
- B.1.15 Give 1 object when asked.
- B.1.16 Line up objects.
- B.1.17 Identify which is more (visually, tactilely, or auditorilly).
- B.1.18 Count backward from 3.
- B.1.19 Give "more" when asked.
- B.1.20 Share a set of 2 with a friend.
- B.1.21 Claim objects as "mine."
- B.1.22 Feed pieces of food to another person, pet, or plaything.

A child can be supported by an adult who:

- Plays peekaboo with child to help her understand that objects continue to exist even when out of her sight (teaches object permanence).
- Plays hiding games with objects.
- Offers objects of interest to count.
- Models counting by pointing to objects as you recite the number, uses fingers to count, and puts up a finger one at a time as you count.
- Encourages the child to sort by looking for similarities in color or shape.
- Provides toys such as simple puzzles and interlocking blocks. Lets the child play without interruption so she can build attention span.
- Asks questions that require thinking.
- Encourages the child to point to and count their fingers, legs, nose, ears, and eyes.
- Helps child look for differences in size (e.g., bigger, smaller, shorter, longer)
- Sings songs or says rhymes that have numbers.

How it looks in everyday activities:

Jennifer is busy changing baby Susan's diaper. During the diaper change she looks at Susan and smiles and talks. The quiet time continues a bit after the diaper change is over. Jennifer touches each of Susan's toes, counting aloud, "One, two, three..." Susan is attentive and coos back at Jennifer, matching her smiling face.

Big brother Eric watches his mother and sister. He is 6 and in the first grade. "Mom," he says with all of the knowledge that first grade imparts, "babies cannot count. They don't even talk!" "Well, not yet," Jennifer agrees. "When you were a baby you liked this game too. When we count with Susan it helps her know about numbers so she will be ready when she gets to first grade, just like you!" Eric thinks about this and gently touches Susan's toe. "One." he begins, smiling at his sister and mother.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Develops a close, trusting relationship with primary caregivers; Child and adult enjoy playing together.

Communication/Literacy:

- Listens and responds to others.

Cognitive:

- Makes connections about what's next; learns sounds have a purpose.

Self Help:

- Learns from authentic experiences.

MATHEMATICS BASIC FOUNDATION 2

B.2 - Computation

Number Language and Operations

Math skills begin when a baby begins to notice what is around him. A baby may notice when a favorite blanket or stuffed animal is “subtracted” from the room or “added to” the room. Math thinking is occurring when an adult asks, “which animal is bigger” or when a child asks for “one more.” Comparing quantities is not dependent on knowledge of counting skills. Because young children do not use math words spontaneously, an adult can help them understand math words such as more, less, smaller than, bigger than, different than. These words help children describe the size and shape of objects and the relationships of objects to one another. Understanding the meaning of these words will help children perform simple operations of adding to and taking away when the child gets older.

Young children are learning when they:

- B.2.1 Select the preferred item when given two choices.
- B.2.2 Communicate when something is empty or “all gone.”
- B.2.3 Indicate a desire for more.
- B.2.4 Gather small collections of 1-3 objects without counting.
- B.2.5 Take away an object when asked.
- B.2.6 Show something that was received.
- B.2.7 Show displeasure at losing something.
- B.2.8 Give 1 object when asked.
- B.2.9 Line up objects.
- B.2.10 Identify which is “more” visually, tactilely, or auditorily.
- B.2.11 Count backward from 3.
- B.2.12 Give “more” when asked.
- B.2.13 Share a set of 2 with a friend.
- B.2.14 Feed pieces of food to another person, pet, or plaything.
- B.2.15 Move objects one at a time from one group or container to another.
- B.2.16 Identify the object that had been added to a group.
- B.2.17 Describe that something was taken.

A child can be supported by an adult who:

- Plays and talks to the child.
- Places objects near the child for exploration.
- Moves the child from room to room to explore environments.
- Offers safe toys for play.
- Provides small blocks that can be held in the child’s hands.
- Gives the child stacking toys and objects that fit inside each other.
- Shows examples of one-to-one correspondence (e.g., plays “one-for-you-one-for-me” game).
- Uses “number” and “size” words when talking to the child.
- Provides sorting opportunities.

How it looks in everyday activities:

Alice sits in her high chair watching her mother Teresa move around the kitchen as she prepares a snack for her and the other children she cares for. Teresa opens a bag of pretzels and gives each older child a few on a napkin. Cody and Caitlin, who are 5, count their pretzels to make sure they have the same number. Alice points to the pretzels, looking at her mother and making sounds.

“Alice are you ready for a snack, too?” Teresa asks. Alice holds out her hand and vocalizes again. “Here is one pretzel” Teresa says, emphasizing the word one. “Do you want more?” she asks. Alice looks at her and smiles. Teresa puts the second pretzel in Alice’s other hand saying, “Now you have two pretzels. You have one for each hand.” Alice looks at the pretzels and starts to eat.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Receives one-to-one social experience with adult.

Communication/Literacy:

- Hears number sounds relating to quantity of objects.

Physical:

- Uses small motor skills in holding objects and making gestures.

Self Help:

- Learns how to request more.

MATHEMATICS BASIC FOUNDATION 3

B.3 - Algebra and Functions

See Patterns, Sort, and Classify

The ability to see and create patterns helps children make connections about what they see and experience. It helps children to develop a sense of sequence and relationships. A pattern is a regular arrangement of objects, numbers, or shapes. Understanding patterns and relationships means understanding rhythm and repetition as well as ordering things, sorting, and categorizing.

Young children are learning when they:

- B.3.1 Repeat a movement like a clap.
- B.3.2 Show interest in visual/auditory/tactile patterns.
- B.3.3 Show interest in something out of place, like finding a small object on the carpet.
- B.3.4 Clap hands and wave bye if prompted.
- B.3.5 Complete a word or phrase that repeats in a familiar song or story.
- B.3.6 Purposely move and manipulate different objects.
- B.3.7 Clap or move to a beat.
- B.3.8 Share a set of 2 with a friend.
- B.3.9 Nest smaller objects into larger.
- B.3.10 Put things in order.
- B.3.11 Move objects from one container to another.
- B.3.12 Claim objects as “mine.”
- B.3.13 Identify which is “more” visually, tactilely, or auditorilly.

A child can be supported by an adult who:

- Provides books and picture patterns.
- Talks about size of objects during play and meals.
- Identifies patterns in everyday life.
- Offers the child opportunities to manipulate objects into and out of patterns.
- Provides simple three-piece puzzles.
- Provides toys that teach cause and effect (e.g., blocks for stacking and allowing space for blocks to fall when stacked too high, simple switch toys that turn off and on).
- Provides child with small blocks saying “Here are two blocks.”
- Provides blocks of different sizes.
- Provides simple matching activities (e.g., matching three-dimensional objects to pictures).
- Offers opportunities to sort and classify foods by attributes, color, and shape.
- Names sounds, rhymes during play, sings songs.
- Provides a variety of materials with textures for manipulation.
- Provides a wide range of opportunities in physical and social environments to encourage sorting and classifying.

How it looks in everyday activities:

Charlie loves blocks. He likes to put them into containers and dump them out. He likes to stack them, line them up, and make them into trains. Today, Charlie goes straight to the block area when he arrives at his child care center. Ms. Jones, his teacher, watches him run to the blocks and waits to see what he will do today.

Charlie pours all of the blocks into a one big pile. Then, he carefully selects only the red ones, putting them into a separate group. Charlie looks up to see Ms. Jones observing him. “Wow, Charlie that’s great!” Ms. Jones enthuses. “You put all the red blocks together.” She sits next to Charlie and selects a blue block, which she carefully places away from the red pile. “Charlie” asks Ms. Jones, “Now can you make a big group of blue blocks?” Charlie works carefully on the tasks. As Ms. Jones watches him she wonders what new thing Charlie will do with the blocks tomorrow.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Self-esteem is promoted through accomplishment of a task without assistance.

Communication/Literacy:

- Practices follow-through; follows instructions.

Physical:

- Uses large and small motor muscles.

Self Help:

- Learns to self-initiate an activity.

MATHEMATICS BASIC FOUNDATION 4

B.4 - Geometry

Common Shapes and Directional Words

Early geometry concepts involve shape, size, position, space, movement, and direction. Geometry helps a child describe and classify the physical world in which we live. As children enjoy dropping, rolling, throwing, submerging, or waving objects or running, climbing, building, taking apart and putting together again, they are exploring awareness of themselves in relation to people and objects around them. This is a child's way of finding out how the world works.

Young children are learning when they:

- B.4.1 Notice objects and purposely move and manipulate different objects.
- B.4.2 Use a shape toy to explore basic shapes.
- B.4.3 Remove articles of clothing, like socks or shoes.
- B.4.4 Put things in and out of mouth.
- B.4.5 Look or feel for an object that has been hidden from view.
- B.4.6 Hide face in play.
- B.4.7 Separate objects.
- B.4.8 Put smaller objects into larger holes, slots or depressions.
- B.4.9 Identify 3 body parts.
- B.4.10 Put pairs together.
- B.4.11 Put things in and out of other things.
- B.4.12 Put things on and off of other things.
- B.4.13 Find hidden objects or sounds.
- B.4.14 Hide behind or between objects in play.
- B.4.15 Identify where he/she is currently located.
- B.4.16 Search for something out of sight.
- B.4.17 Put simple objects together and take them apart.
- B.4.18 Imitate drawing a horizontal line, vertical line, and a circle.
- B.4.19 Complete a three piece inset puzzle.
- B.4.20 Move objects from one container to another.

A child can be supported by an adult who:

- Provides safe things the child can touch and manipulate such as blocks, boxes, or containers, shape sorters, and puzzles.
- Cuts sandwiches into different shapes and lets child fit the pieces together or rearrange them.
- Uses words such as same, different, more than, less than, and one more as you compare groups of objects.
- Uses location words such as “in back of”, “beside”, “next to.”
- Talks about what the child is doing so that the child begins to learn the words that describe concepts (e.g., “you were **in** the box, then you climbed out.” “You climbed under the table”).
- Allows children to explore and pace themselves when playing with toys and learning a new skill. Allows child to find own sequence and rate of learning.
- Provides nesting toys such as plastic bowls and measuring cups.
- Provides simple puzzles, stacking toys, shape sorters, and texture balls.

How it looks in everyday activities:

At home one evening Sandy plays on the floor with many different kinds of toys from her toy box. She has some small horses with pink and purple hair, a family of little people from her playhouse, some kitchen supplies, some different sized rings, and a stacking pole. Sandy looks through the toys until she finds all of the rings. There are 5 and they are all different colors and sizes. She puts the rings on the pole one by one. It takes her several tries to get the rings on in the right order, from largest to smallest. Dan, Sandy's dad, watches. He notices that Sandy is working hard but is not frustrated, so he does not interfere, waiting to see if help is needed. When Sandy has the rings stacked correctly, she stops and looks over at her dad. Dan says, "Good for you Sandy! You found all the rings and put them on the stacking pole." Sandy seems pleased as she dumps the rings off the pole to start again.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Practices self-direction in use of toys.

Communication/Literacy:

- Learns listening skills from adult comments.

Physical:

- Uses small motor skills.

Self Help:

- Selects from various objects for correct usage.

MATHEMATICS BASIC FOUNDATION 5

B.5 - Measurement

Measurement is a frequently used application of mathematical concepts. Counting is a type of measurement because it measures how many items in a collection. Early measurement concepts also include attributes such as length, volume, area, weight, and time. Young children may learn that the properties exist, but they do not know how to reason about these attributes or measure accurately until later on. Young children develop measurement ideas over an extended time because the concept is quite complex. Young children begin to develop an understanding of measuring attributes by looking at, touching, or directly comparing things.

Young children are learning when they:

- B.5.1 Give one object when asked.
- B.5.2 Select the preferred item when given two choices.
- B.5.3 Communicate when something is empty or “all gone.”
- B.5.4 Indicate a desire for more.
- B.5.5 Identify big.
- B.5.6 Pour substances out of containers.
- B.5.7 Cooperate with a routine.
- B.5.8 Anticipate an event.
- B.5.9 Give one object when asked.
- B.5.10 Identify which is “more” visually, tactilely, or auditorily.
- B.5.11 Give “more” when asked.
- B.5.12 Share a set of 2 with a friend.
- B.5.13 Distinguish big and little.
- B.5.14 Make choices based on size.
- B.5.15 Identify when objects are similar.
- B.5.16 Pour substances into containers.
- B.5.17 Anticipates a sequence during daily activities.

A child can be supported by an adult who:

- Sets simple time limits (e.g., three more swings and we are done. Verbally counts 1, 2, 3).
- Offers a variety of safe household objects to explore (e.g., cups, bowls, spoons).
- Talks about measurement in daily routines (e.g., all done, more, heavy, longer).
- Extends play activities with a measurement activity (e.g., look at one more page in the book, build a tower with one more block, play with one puzzle at a time).
- Offers opportunities for waiting (e.g., your turn is next).

How it looks in everyday activities:

Two and a half year old Jake and his Daddy are getting dressed to go outside in the back yard so they can work in the garden one Saturday morning. Daddy helps Jake find the warm clothes they need to wear outdoors on this fall morning. “Now let’s put our shoes on,” Daddy says to Jake.

Daddy and Jake walk together to the back door where they keep their dirty work shoes. Jake’s small shoe is sitting next to Daddy’s big work shoes. Jake points to Daddy’s shoe and says “Big shoe” with wide eyes. Daddy chuckles and says, “Right Jake. Daddy’s shoe is big and Jake’s shoe is little.” Daddy starts to pick up his shoes then pauses. He smiles at Jake and asks, “Which shoe is heavier?” Jake picks up each shoe one at a time. He carefully carries the heavy work shoe to Daddy. “Yes, Jake.” Daddy says, pleased that Jake could figure out the task. “Daddy’s work shoe is heavy and your work shoe is light.” The two head out the back door to dig in the garden.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Child and adult interaction.

Communication/Literacy:

- Practices listening skills.

MATHEMATICS BASIC FOUNDATION 6

B.6 - Problem Solving

Problem Solving Through Exploration

According to the National Council of Teachers of Mathematics (NCTM, 2000), problem solving is a hallmark of mathematical activity. It is finding a way to reach a goal that is not immediately attainable. Infants and toddlers are natural problem solvers because the world is new to them. They show natural curiosity and flexibility as they face new situations. Young children want to find out more about the world they live in – they ask lots of questions. They actively explore their environment, taking apart and putting together again, and finding out how things work. Problem solving focuses on the child’s curiosity and ability to obtain, organize, and use information.

Young children are learning when they:

- B.6.1 Show interest in visual/auditory/tactile patterns.
- B.6.2 Show interest in something out of place, like finding a small object on the carpet
- B.6.3 Complete a word or phrase that repeats in a familiar song or story.
- B.6.4 Purposely move and manipulate different objects.
- B.6.5 Pour substances in and out of containers.
- B.6.6 Indicate a need.
- B.6.7 Search for something.
- B.6.8 Move to obtain an object
- B.6.9 Use a learned behavior in a new way.
- B.6.10 Separate objects.
- B.6.11 Put smaller objects into larger holes, slots, or depressions.
- B.6.12 Repeat a behavior that had previously caused a desired effect.
- B.6.13 Communicate discomfort.
- B.6.14 Put things in order.
- B.6.15 Anticipate and navigate around environmental barriers.
- B.6.16 Put pairs together.
- B.6.17 Identify when objects are the same.
- B.6.18 Search for something out of sight.
- B.6.19 Use active exploration to solve a problem.
- B.6.20 Take simple objects apart.
- B.6.21 Put simple objects together.
- B.6.22 Complete an inset puzzle of 3 or more pieces.
- B.6.23 See a simple task through to completion.
- B.6.24 Show pleasure or displeasure at an effect.
- B.6.25 Communicate disappointment.

A child can be supported by an adult who:

- Provides interesting objects in environment and changes the environment to stimulate interest in world around child.
- Realizes that children receive information best when they see, hear, and touch at the same time.
- Responds to needs of the infant.
- Plays guessing games about needs with older toddler to assist the child in gaining control over the environment.
- Puts safe objects in path of crawler to present problem-solving opportunity for child to obtain or move around the object.
- For the child who is eating solid food, provides cereal pieces and spoon and demonstrates use of spoon to gather food.
- Provides more challenging stacking/ nesting objects.
- Provides opportunities for child to estimate quantities of things and make predictions.
- Verbalizes observation of child’s play (e.g., “That cup holds lots of water”).
- Asks questions concerning the child’s activities (e.g., “How does that work?”).

How it looks in everyday activities:

Sara, a few months old, wakes up crying and ready to eat. Her mother Helen wakes up and quickly prepares a bottle for her daughter. Sara continues to cry until Helen picks her up and starts to feed her.

“There you go sweetie,” Helen croons to the baby. She uses a low soft voice as she tells Sara all about what they will do that day. Sara relaxes when she hears her mother’s familiar voice and feels her arms holding her in just the right way.

Although she is still very sleepy, Helen feels good that she is able to comfort her baby in a way that no one else can. From her experience with her older child, Helen knows that Sara will calm down as soon as she sees her mommy, even before she picks her up and starts to feed her. Helen knows that how she is with her baby right now helps Sara to learn to trust and have confidence.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Bonds with parent for wants and needs.

Communication/Literacy:

- Learns listening skills of voice of parent.

Self Help:

- Initiates communication to indicate wants and needs.

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SCIENCE
BIRTH TO THREE

SCIENCE
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BIRTH TO THREE

BASIC FOUNDATIONS FOR SCIENCE

Infants and young children are natural scientists. Beginning at birth, babies use all of their senses in their efforts to understand and organize their environment and experiences. Through multi-sensory, firsthand, spontaneous, and repeated observations and direct experiences with materials, processes, and other people, babies gradually begin to formulate an understanding of what the world is, how it works, and their own place in it. This understanding will change over and over as the young child uses evidence gained from experiences much like the scientist supports or disproves a theory.

Through early science experiences, infants and toddlers:

- Develop trust in other people and a sense of personal effectiveness.
- Gain necessary, firsthand experiences with objects and other people that help to develop sensory, physical, emotional, intellectual, and social attributes.
- Develop basic concepts about physical and social environments (properties of objects and people).
- Increase observation skills.
- Receive opportunities to use their senses and curiosity to explore their environment.
- Use their bodies and materials found in everyday settings to act on objects.
- Are supported by adults to explore, wonder, reason, and solve problems.



KEY FINDINGS

- ◆ **Everybody can do science and invent things and ideas.** [*American Association for the Advancement of Science, 1993*]
- ◆ **Learning science is something children do, not something that is done to them.** [*National Research Council, 1996*]
- ◆ **Infants and toddlers are natural explorers and scientists. They are actively learning about the physical and social world everyday** [*Lally, J.R, et al. 1995*]
- ◆ **Caring adults can support or “scaffold” an infant’s and toddler’s active attempts to learn about the world by:**
 - ◆ **Paying attention to the child’s interests and intentions.**
 - ◆ **Arranging the environment so the child is better able to make contact with it.**
 - ◆ **Adjusting verbal and physical support to fit the child’s abilities.**[*Berk, L.E. & Winsler, A., 1995*]
- ◆ **Even infants are already doing the basic processes of science—observing, forming theories, making predictions, experimenting, and drawing conclusions from their observations and experiments.** [*Gopnick, A., Meltzoff, A.N., & Kuhl, P.K., 1999*]
- ◆ **Infants and toddlers become more curious, are more likely to explore, are better able to learn about the world when they are supported by sensitive caregivers they know well and with whom they feel secure.** [*National Research Council, 2000*]



SCIENCE BASIC FOUNDATION 1

B.1 - Scientific Inquiry and Process

Infants and toddlers are active explorers. They are able to learn about their environments through their senses, such as listening, hearing, touching, and hands-on experiences.

Intellectual curiosity is considered ‘the very source’ of science, because science activities provide opportunities for both learning and development (Hadzigeorgiou, 2001). Young children enjoy hands-on experiences with objects and materials. These early science experiences are fun for children and benefit all areas of their development. Both novel and familiar activities build concepts that can be used throughout life.

Young children are learning when they:

- B.1.1 Search and respond to sound and voice.
- B.1.2 Follow objects.
- B.1.3 Look at things within the environment.
- B.1.4 Use their five senses to learn about the environment.
- B.1.5 Recognize and discriminate the sight, smell, and sound of the principal caregiver.
- B.1.6 Show curiosity in objects and sounds.
- B.1.7 Find an indirect way to obtain an object.
- B.1.8 Repeat a behavior that had previously caused a desired effect.
- B.1.9 Manipulate objects.
- B.1.10 Get inside things to explore.
- B.1.11 Experiment with likes and dislikes of caregivers and other children (e.g., pulling hair).
- B.1.12 Ask questions through actions (e.g., pointing).
- B.1.13 Predict reactions from others (e.g., pulling hair).
- B.1.14 Anticipate and navigate around environmental barriers.
- B.1.15 Ask and answer simple questions.
- B.1.16 Communicate discoveries.
- B.1.17 Identify hot and cold in the environment.
- B.1.18 Identify sun and rain in the environment.
- B.1.19 Express ideas and share observations with others.

A child can be supported by an adult who:

- Follows a child's lead.
- Allows the child to explore, manipulate, and problem solve with ample time for practice and repetition.
- Provides sensory materials and experiences that are interesting and stimulating.
- Talks to the infant about things he is interested in, things he is doing, and things the adult is doing.
- Allows the infant to ‘mouth’ things.
- Promotes exploration by being available, aware of safety issues, and responsive to their cues.
- Provides reassurances and serves as a positive, exploring role model.
- Scaffolds: Notices what the infant is doing and then provides just enough assistance to facilitate continued learning.
- Asks questions that stimulate thinking and problem-solving (e.g., What if?).
- Encourages exploration by imitating the infant's actions.
- Extends the toddler's thinking and learning by imposing problems, making suggestions, responding to and encouraging the toddler's questions.
- Adds complexity or simplifies any task.
- Encourages the toddler to represent discoveries and ideas through a variety of ways (e.g., drawings, photos, discussions, pretending).
- Sets up experiments for toddlers (e.g., ice in the water table with other objects such as food coloring, plastic hammers).

How it looks in everyday activities:

Logan and Emma whispered excitedly to each other as they watched Mrs. Glen bring out a large bowl of ice. Mrs. Glen said, “Boys and girls, here are some tongs, spoons, containers of warm and cool water and lots of other things. You can use all of these materials to experiment with ice and water today.”

The children could hardly wait to start trying out different activities with the materials! Logan started dropping ice pieces into different containers of water, watching the water splash each time.

Emma found a big wooden spoon and stirred the ice in the large bowl, enjoying the crashing noises and the sight of the ice pieces flying up and out of the bowl. As she stirred, Emma noticed something. “Hey Logan!” she said, “The ice in the big bowl is turning to water!” “Yeah,” Logan added, “It melts when it gets warm.” Emma saw a large eye dropper and found that she could suck the water from around the cubes and then squeeze it back into the bowl or another container. Logan came nearer and watched Emma, saying “I want a turn with that next.”

Mrs. Glen watched Emma working and Logan watching. She knew that Logan, who has some difficulty with fine motor tasks, would be frustrated with the eye dropper. “Logan, why don’t you help Emma get the water out?” she asked. “You can use one of these,” she added showing him a baster and a small ladle. The children worked together to clear the melted ice from the bowl.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Children playing side-by-side.
- Works cooperatively.

Physical:

- Uses small motor skills in picking up objects.

Communication/Literacy:

- Communicates with peer.

Self-Help:

- Experiences cold sensation.

SCIENCE BASIC FOUNDATION 2

B.2 - The Living Environment

Babies and toddlers need repeated multi-sensory opportunities to learn about their environments through child-directed and adult supported explorations and interactions.

There are many different kinds of environments that serve as natural science laboratories. Young children need to have unstructured time in these different environments to allow them to repeat activities over and over. Examples of science environments include home, child care centers, libraries, stores, zoos, museums, and playgrounds. Within these environments children have opportunities to be natural explorers as they learn about people, places, and things.

Young children are learning when they:

- B.2.1 Seek interaction and enjoy social play (e.g., patty cake).
- B.2.2 Explore objects by touching, shaking, banging, and mouthing.
- B.2.3 Show fear of falling off of a high place.
- B.2.4 Look for a toy that has rolled out of sight.
- B.2.5 Resist separation and seek reassurance from trusted caregiver when encountering an unfamiliar person or object.
- B.2.6 Listen when caregiver describes what the infant is doing with objects and imitates the caregiver.
- B.2.7 Get into everything and require constant supervision.
- B.2.8 Activate simple machines or cause and effect toys; take toys apart.
- B.2.9 Push or pull objects while walking.
- B.2.10 Repeat a behavior that had previously caused a desired effect.
- B.2.11 Enjoy filling and dumping activities.
- B.2.12 Resist adult's direction or agenda by testing limits.
- B.2.13 Actively explore the entire environment, indoors and outdoors, with high energy.
- B.2.14 Show an interest in interacting with pets and participate in their care with assistance from caregiver.
- B.2.15 With some guidance, use toys and tools safely and store them in the proper place

A child can be supported by an adult who:

- Plays patty cake, peek-a-boo, and hide and seek.
- Provides objects that are fun to poke, squeeze, manipulate, with different textures, shapes, and sizes.
- Provides containers that can be opened and closed, nested, or smaller objects that can be dropped into larger ones.
- Offers choices ("which shirt will you wear today?") to support growing need for independence.
- Encourages riding toys to gain sense of self in space.
- Offers opportunities for messy play, such as water or sandbox.
- Provides tools and toys for the child to use when exploring the environment (e.g., buckets, shovels, water).
- Takes child on walks or rides, describing what they see.
- Models imitation of the sounds and actions of objects, animals, and people (e.g., teach finger plays to encourage imitation).
- Helps infant develop a sense of trust and security by sensitive responding.
- Places babies in new places and new positions (avoids too much time in a play pen, walker, swing).
- Provides experiences related to the study of earth materials, patterns, and change (e.g., water, rocks, dirt, snow).
- Provides opportunities for infants to smell different smells (e.g., lemon, apple juice, grass).
- Exposes toddlers to a variety of tastes and temperatures in food (e.g., warm oatmeal, cold sherbet); encourages self-feeding.

How it looks in everyday activities:

Three-month-old Alicia lies on a blanket in her living room. Her dad, Mike, sits near her while her mother, Cindy, rests on the couch. Older brothers wrestle and laugh across the room. Alicia's eyes are alert and she turns them in the direction of the sounds her siblings make. She turns her eyes back to her dad when he says, "Hi baby Alicia." She smiles and moves her arms and legs. After a moment, Alicia looks away then looks back again. "Stick your tongue out at her," says Cindy, "and she'll copy you." Mike tries it to the delight of the big brothers who cluster around to see what their baby can do.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Eye contact; social smile; early turn taking.

Physical:

- Moves arms and legs; use of senses through eyes and ears.

Communication/Literacy:

- Attends to language.

Self-Help:

- Turns away to regulate stimulation.

SCIENCE BASIC FOUNDATION 3

B.3 - The Nature of Science and Technology

Sharing Observations and Discoveries

Babies and toddlers want to share the things they know, see, and that attract their interest. They are rapidly developing skills that allow them to predict, classify, and categorize the many experiences and routines that are occurring around them.

As babies and toddlers explore their world and interact with others, they gain and organize knowledge. Interactions with caring adults provide a scaffold that allows the child to clarify ideas, practice what was learned, and begin to apply this information to new situations.

Young children are learning when they:

- B.3.1 Move from primarily reflex actions to doing things on purpose.
- B.3.2 Cry to express displeasure.
- B.3.3 Follow a moving object or person with eyes.
- B.3.4 Focus eyes on small objects and reach for them.
- B.3.5 Listens to others' conversations.
- B.3.6 Imitate adult facial expressions and simple actions.
- B.3.7 Explore objects with various properties (e.g., color, sound, texture, shape).
- B.3.8 Hold a crayon or marker and scribble.
- B.3.9 Imitate something heard or seen earlier in the day (delayed imitation).
- B.3.10 Enjoy simple pretend play.
- B.3.11 Label and describe familiar objects.
- B.3.12 Notice details in objects.
- B.3.13 Talk to self to solve problems.
- B.3.14 Repeat an action after adult demonstrates it.
- B.3.15 Sort and match objects by more than one attribute.
- B.3.16 Use words to describe physical attributes of objects (e.g., size, color).
- B.3.17 Use words to describe processes and actions (e.g., fast, wet, hot).
- B.3.18 Make representative drawings of familiar objects and people.

A child can be supported by an adult who:

- Asks good questions that help children make and evaluate a plan (e.g., "What could we do?" "What will happen next?").
- Has a regular, daily routine that builds the ability to predict events.
- Scaffolds the child's learning by breaking down tasks into steps and reminding of the next step by giving indirect suggestions rather than giving the answer.
- Allows lots of time to work on problems—doesn't offer help too soon (e.g., offer toys with moving parts).
- Allows the child to experience the consequences of actions (when safe). Then talk about what happened and why.
- Reads a variety of books to the child everyday and uses the words from the book in everyday conversations.
- Models reading /writing /drawing for and with the child.
- Encourages play with safe mirrors.
- Plays a simple game of "find" (e.g., "I spy with my little eye").
- Adds new information to what a child is saying (e.g., "Yes, that's a blanket, a soft, warm blanket.>").
- Avoids making models of clay or drawing pictures for the child to copy.
- Talks clearly and calmly with the child about what they are doing.
- Imitates and encourages the child's attempts to make sounds or says words.
- Provides materials of appropriate and safe size for sorting (e.g., colored blocks) and something to sort them into (e.g., muffin tin).

How it looks in everyday activities:

Abby, age 22 months, visits her grandmother with some cousins. The cousins, who are older, go outside to fish in the creek. Abby reaches up to Grandma and says, "Water." "Are you thirsty?" asks Grandma, picking her up and walking to the cabinet. "Here's a cup, let's get a drink." Abby looks out of the window where she can see the cousins with fishing rods standing near the creek. She points outside and says again, "Water." Grandma follows Abby's look. "Oh you want to go outside to the big water," she says as she carries Abby outside. Abby smiles, satisfied, and repeats "big water" several times. Outside, Elise shows Abby a small fish. Abby's eyes are wide and she holds tight to Grandma. Elise says, "It's just a fish! See? We're gonna let it go back to the water." Abby gets down and walks nearer the water. She looks down at the water where the fish disappeared and quietly says "Ish. Water. Big water."

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Holds grandmother when frightened.
- Attends to activities of others.

Physical:

- Walks; reaches; adjusts when carried.

Communication/Literacy:

- Uses pointing to communicate.
- Uses words to make a request and comment.
- Repeats what others say.

Self-Help:

- Persists in getting needs met.

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SOCIAL STUDIES
BIRTH TO THREE

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BIRTH TO THREE

BASIC FOUNDATIONS FOR SOCIAL STUDIES

Social studies is the study of people, relationships, and cultures. It looks at how people live today and in the past, work and get along with others, become good citizens, and how they are affected and affect their environment. The primary purpose of social studies is to help people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world.

Social studies for infants and toddlers helps young children learn through their senses and experiences about physical location (body awareness) and physical time, social-emotional competence, and personal responsibility. For young children, social studies is emphasized through relationships. Beginning at birth, a baby learns whether he can trust his or her parents to meet needs. As very young children have experiences in their home and environment they will be able to build more accurate concepts of history, geography, government, and economics. These concepts are built around the child's personal experiences and understanding the relationship of self and others.

A young child's social competence is an important part of development. This means being inclined to seek out or enjoy the company of others. It is the willingness to interact with adults and others. Social competence is related to learning about others and their cultures and getting along with others. The quality of a young child's social competence can be a predictor of later social and academic competence (Pellegrini & Glickman, 1990).

The social studies foundations will assist adults with ideas to help infants and toddlers learn about their world, both physical and social. This information will lay the foundation for building positive relationships and success academically and socially later in school.

KEY FINDINGS

- ♦ Infants learn about the world through touch, sight, sound, taste, and smell. They learn about relationships from how people touch and hold them, and from the tone of voice and facial expressions people use when caring for them. *[DeBord, K. 1996]*
- ♦ Children have natural curiosity. They show curiosity about things from the past. This curiosity can be used as the foundation for historical understanding. *[Fromboluti C.S. & Seefeldt, C., 1999]*
- ♦ Young children learn about social studies first hand by being members of a family, community, and school where they live, work, and share with others. *[Dodge, D.T., Colker, L.J. & Heroman, C. 2000]*
- ♦ Children who achieve social competence by the time they are in kindergarten are more likely to succeed academically and socially in later grades. *[Katz & McClellan, 1997]*
- ♦ Young children learn through their senses and experiences. They ask a million questions. *[Fromboluti, C.S. & Seefeldt, C., 1999]*



SOCIAL STUDIES BASIC FOUNDATION 1

B.1 - History

Developing physical time is a forerunner to historical knowledge. Daily experiences that are recurring, sequential, and part of a regular routine are important for young children to begin understanding time. Young children can also be introduced to family celebrations and holidays in connection with family history and values. Young children are not ready to conceptualize chronological history. The first step is to begin with awareness of time. Understanding hours or days is difficult and will come later in development. Many children show curiosity about things from the past before formal school, and this curiosity can be used to begin the foundation for historical understanding.

Young children are learning when they:

- B.1.1 Cooperate with a routine.
- B.1.2 Anticipate a sequence during daily activities.
- B.1.3 React to new situations based on memory of a previous event.
- B.1.4 Listen to stories about people and places.
- B.1.5 Recognize when caregiver is not present.
- B.1.6 Look at picture books with interest.
- B.1.7 Direct attention to familiar objects and people.
- B.1.8 Identify other people and their roles.
- B.1.9 Recognize the beginning of an event (e.g., come to table when food is placed there).
- B.1.10 Recall immediate stories/events and begin to develop sequence of happenings.
- B.1.11 Recall details from immediate past. (At about one year, the child may remember things for 1-2 days.)
- B.1.12 Use own vocabulary to relate experiences (e.g., any event happening in the past is referred to as happening yesterday).
- B.1.13 Notice likeness and differences in others.

A child can be supported by an adult who:

- Establishes a routine and discusses ideas with child.
- Reacts to child's actions and understands a young child's cues (communication).
- Talks to child about what happened "last night" and "this morning."
- Presents pictures in sequential order.
- Reads and tells stories and nursery rhymes and discusses them with child.
- Assists the child in periods of transition (e.g., bedtime, naptime, attending preschool or child care).
- Encourages the child to recall information about the immediate past.
- Includes child in family celebrations, holidays, and family history (stories, songs).
- Takes photos of the child and family and talks about the pictures.

How it looks in everyday activities:

Mrs. Chan tucks Tommy in bed for the night and Mr. Chan stands nearby holding a book for his nighttime story. Although he is not yet three, Tommy knows and takes great comfort in the familiar routine of bath, pajamas, and brushing teeth, ending with a snuggle and a story.

“Tommy, what did you do today?” Mr. Chan asks his son. Tommy thinks and Mrs. Chan helps him to recall that they went to the library, played in the park, had a nap, and played with trucks. “That sounds like a fun day, Tommy”, says his dad. “I wonder what you will do tomorrow?” he asks. “Swim with Mommy and Jack and his mommy!” Tommy shouts happily. “Plans already?” laughs Mr. Chan.

“Well what do we do now?” Mrs. Chan asks Tommy and Mr. Chan. “Is it lights out?” “No” Tommy shakes his head. “It is time for story.” “That’s right Tommy,” Mrs. Chan says, and completes the family routine.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Enjoys child and adult interaction.
- Follows a routine.

Communication/Literacy:

- Answers questions.
- Discusses sequence of events.

SOCIAL STUDIES BASIC FOUNDATION 2

B.2 - Civics and Government

At a young age, children can begin to understand that every person is responsible to themselves as well as to others, and that all choices have consequences. Participating in a democracy involves making informed choices. Young children who have many opportunities to make choices in their own lives when given options are growing in this important process skill. Understanding the need for and being able to follow rules is an important developmental step for young children.

Young children are learning when they:

- B.2.1 Help feed themselves.
- B.2.2 Watch people.
- B.2.3 Around one year, offer toys or objects to others but expect them to be returned.
- B.2.4 Show interest in other children.
- B.2.5 Communicates “no.”
- B.2.6 Assist with daily needs (washing hands, toileting, brushing teeth, assisting with meal preparation).
- B.2.7 Assist with simple chores on a daily basis.
- B.2.8 Around two, show self as “doer” (e.g., explore everything, be assertive in preferences, and increase range of self-help skills).
- B.2.9 Develop the process of “play” from playing alone to playing alongside, then playing with someone else around age three.
- B.2.10 Follow simple directions.
- B.2.11 Respond positively to options rather than commands.
- B.2.12 Listen to stories about helping.
- B.2.13 Pay attention to conversations.
- B.2.14 Push away something not wanted.

A child can be supported by an adult who:

- Demonstrates how the child can use words instead of force to obtain something.
- Models sharing and modeling the behaviors you want to encourage (e.g., say please or lend a helping hand).
- Supports individuality by providing choices whenever possible (e.g., “You have to change your shirt, but you can choose the red one or the green one”).
- Asks for the child’s help with daily tasks, and accepts their offer of help.
- Allows time for the child to discuss behavior and circumstances.
- Does for, does with, and watches as the child learns to do things independently.
- Establishes limits for child’s behavior to provide a physically and emotionally safe environment.
- Develops positive rules with the child for understanding and ownership.
- Talks about the reason for rules.

How it looks in everyday activities:

Maria provides child care for her sister Louisa's son Juan, age 30 months. Today she has set up a play date with Juan's friend Cody. "What do you think Cody will like to play with?" Aunt Maria asks Juan. Juan thinks and says "Trucks and cars," which are his favorites too. Aunt Maria and Juan get out a variety of cars, trucks, and a garage to play with. Maria realizes that it can be hard for two year olds to share, so she makes sure to have several duplicate toys and she puts away Juan's very favorite truck for another time.

While Juan and Cody push the cars around the track, Aunt Maria prepares a snack for the boys. She helps the boys put the cars and trucks away before calling them to the table for a snack. Aunt Maria says to the boys, "After a snack, maybe you would like to play outside for a while." The boys look at each other with excitement. "Swings," says Juan and "Slide," Cody adds. The plan is made.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Tolerates being physically near others.
- Plays alongside another child.

Communication/Literacy:

- Initiates communication.
- Follows simple directions.

Self-Help:

- Participates in clean up routine.

Physical:

- Uses fine motor skills.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography

Location (Spatial Awareness)

One of the first tools geographers use is location. This tells us where something is. Young children are geographers. They dig in the sand, pour water, and watch rain fall. They try to find out about the nature of the world and their place in it. Young children learn that they relate to other people and things. To help children learn location, they need to develop body awareness including its size and level when upright, crawling or stooping, or on the floor, the different body parts and how their body moves in different directions like forward, backward, or sideways. When they know how their body moves, they will have the basics for learning directions and locations later in life. The more opportunities children have to run and move about, the greater their ability to keep track of position and location.

Young children are learning when they:

- B.3.1 Use sight, sound, taste, touch, and smell to explore their world.
- B.3.2 Turn toward bright lights and sounds.
- B.3.3 Follow simple directions.
- B.3.4 Around 2 or 3, point out signs that indicate location.
- B.3.5 Observe weather, location of familiar places, and different ways of travel while on neighborhood/community walks.
- B.3.6 Identify and locate familiar places.
- B.3.7 Name and locate eyes, ears, or nose when asked.
- B.3.8 By age two, distinguish between near and far.
- B.3.9 Notice features of immediate surroundings (e.g., bedroom, yard).
- B.3.10 Finds ways to maneuver around an obstacle that is in the way of obtaining something desired.
- B.3.11 Use blocks to represent roads and buildings.
- B.3.12 Become familiar with the idea that maps help people locate themselves in space.

A child can be supported by an adult who:

- Provides a safe and comfortable space for the child to explore environment.
- Provides activities that encourage the child to explore the space around him or her (reaching, batting, tummy time, stroller rides).
- Plays simple games using various directional words (e.g., up, down, forward, backward).
- When traveling, uses directional terms (e.g., “We will turn left at the next street”).
- Teaches positional words when doing household tasks (“Please put your toys INTO the yellow basket.”)
- Allows the child to assist you when using maps or globes.
- Uses songs to teach geography (London Bridge).
- Asks the child questions about what you both are seeing.
- Travels in different ways with the child (bus, car, train).
- Comments daily on the weather and points out changes.
- Names items in the home and in the environment during nurturing routines.

How it looks in everyday activities:

Mary provides child care in her home for several toddlers. On this rainy day, she has set up an obstacle course in the play area. They are large boxes, a tunnel, and some pillows. She drapes some soft scarves across some chairs so the children can crawl under and between them. Mary hopes the young children will enjoy the active play, learn about directions, and learn some body parts.

When Tim, Tina, and Katie arrive, Mary tells them there is a surprise in the play room. Tim and Tina are pleased, and Katie is a little hesitant as always. Mary takes Katie by the hand, and they all walk into the play area. Tim and Tina run right away and start moving through the different areas. Mary sits with Katie on her lap. She begins to talk about what Tim and Tina are doing. “Oh Tina went under the green scarf!” she says. “And now look! Tim is putting his feet in the big box.” Katie looks back and forth at the children and Mary. Mary is pleased to see Katie looking at her own feet when she talks about Tim’s feet. She knows that Katie can learn by watching, and that she will enter the play when she feels ready. Sure enough, after a few minutes, Katie gets up and walks close to the pillows. She sits down on one and then slowly starts crawling under a scarf. Katie giggles and smiles at Tina, then climbs into a box, as Mary softly narrates her actions.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Plays alongside other children.

Communication/Literacy:

- Communicates with the adult.
- Uses new words to describe body movements.

Self-Help:

- Participates in clean up routine.

Physical:

- Engages in a physical activity.
- Uses large motor skills.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography (continued)

Places

Young children first begin by learning about their home environment. Just like people, places have a lot in common, but no two are exactly alike. Children will begin noticing how their homes and buildings look. When children learn about trees, streets, and their homes, they see that they live someplace special.

Young children are learning when they:

- B.3.13 Explore things with mouth, hands, fingers, and toes.
- B.3.14 Recognize familiar places.
- B.3.15 Describes simple features of familiar places.
- B.3.16 Give the name of home city or town.
- B.3.17 Give information about home (e.g., street name, house description).
- B.3.18 Use words such as hard and soft, rough and smooth, and water and land.
- B.3.19 Show fear of falling off high places such as stairs.
- B.3.20 Match objects to location such as stove to kitchen, bed to bedroom.

A child can be supported by an adult who:

- Describes environment with sensory words (e.g., hard/soft, rough/smooth, water/land).
- Provides an environment rich with sounds, smells, sights, and tastes.
- Talks about the stores and buildings visited and what is in them.
- Helps the child make a simple map of the neighborhood, house, or school.
- Discusses some of the basic natural features of the earth in the child's immediate environment (e.g., river, pond, woods, fields).
- Provides the child many opportunities to explore and experience the natural world.
- Provides the child with materials and opportunities to draw what the child sees in and around the home environment.

How it looks in everyday activities:

On a warm afternoon in September, Tricia decides to take her 27 month old twins Carla and Sam to the park to see the colorful leaves. She chooses an accessible park since Sam still has some limitations in his mobility. The park has good surfaces for pushing Sam in a stroller, and he will be able to see older children being active in wheel chairs, which he will soon start learning to use himself.

Carla walks in the grass and crunches leaves underfoot. "Look Mommy," she says holding up a red leaf. Tricia says, "Yes, the leaves are changing colors. They were all green just the other day." Carla gives a leaf to Sam, who looks at it closely, turning it over and feeling the edges. Sam sees a squirrel running up a tree with an acorn in his mouth. He points to the squirrel, showing his find to his mom and sister.

Tricia helps Sam out of the stroller, and they all sit for a while in the grass, watching the leaves and feeling the sun. Sam moves a little away and finds several acorns and some walnuts on the ground. He looks at the nuts and pretends to put one in his mouth like the squirrel. Carla and Tricia laugh with Sam. He looks over to the tree where he had seen the squirrel, then carefully puts the nuts in a pile. Carla watches him and lays a leaf on top of the pile. Tricia nods at their work and says, "Are you leaving the squirrel some nuts to find for dinner?" "Good dinner," says Sam and they pack up to leave.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Child and adult are interacting and playing with each other.

Communication/Literacy:

- Learns listening skills from adult.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography (continued)

Physical Systems

Young children are fascinated with weather. We experience weather everyday. Young children become aware of the weather and how it affects people. Weather is an important part of learning about our world.

Young children are learning when they:

- B.3.21 Explore things with mouth, hands, fingers, and toes.
- B.3.22 Recognize familiar places.
- B.3.23 Talk about weather and its relationship to appropriate clothing/activities.
- B.3.24 Show comfort and discomfort with the temperature of the room or when outdoors.
- B.3.25 Talk about and be curious about the weather (e.g., temperature, rain, snow, climate inside and outside).
- B.3.26 Notice that people wear different types of clothing depending on the weather.

A child can be supported by an adult who:

- Talks about the sunshine or rain, the heat or the cold, and how to dress for weather.
- Talks about clothing choices with the child based on the weather.
- Takes the toddler for a walk when it is windy, raining, or snowing and talks about the experience.
- Identifies seasons of the year (e.g., snow, leaves falling).
- Talks about the clouds.
- Notices child's comfort with the environment (e.g., is child hot or cold, sweating or shivering).
- Dresses the child considering the temperature conditions inside and outside.
- Is flexible with routines that are affected by the weather.
- Watches the weather forecast on TV with the child.

How it looks in everyday activities:

Zack, age 22 months, looked out the window and saw the clean white snow falling hard on the trees and ground. His big sister Gracie yelled, “Mom do we have school today??”

“I don’t think so,” Mommy answered, “but let’s turn on the television and check for school closings.” The weatherman was standing in front of a map, pointing to red and blue lines. He talked about the weather that day and what to expect the next day. Gracie cheered when she saw the name of her school scroll across the bottom of the screen. “It’s a snow day, Zack,” she crowed. “Snow day!” Zack repeated, matching his sister’s happiness.

After breakfast Zack and Gracie got ready to go outside in the snow. They put on warm clothes and boots. Zack did not want to wear his hat, but Mommy explained how cold the snow would feel, so he put it on. Outside Zack touched the cold snow. Gracie showed him how to make and throw a snow ball. “Watch me,” Gracie said, laying in the snow and moving her arms and legs. “I’m making a snow angel.” Zack watched and tried to do the same. His nose was bright red and his teeth started to chatter, but Zack did not want to go in. Finally, Mommy insisted and they went inside to warm up. While drinking his hot chocolate with marshmallows Zack said “Good snow day.”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Child and adult are interacting and playing with each other.

Communication/Literacy:

- Learns listening skills from adult comments.
- Asking questions and talks about changing seasons, trees, and animals.

Physical:

- Walking and running.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography (continued)

Human Systems

Parents are children's first teachers and their positive relationship forms a solid basis for all other social interactions. Young children begin to understand that they live in a family that may include parents, siblings, extended family members such as grandparents, and even pets. As they spend time in their neighborhoods and community settings such as places of worship, young children will begin to learn that families have different people, foods, rules and routines.

Young children are learning when they:

- B.3.27 Recognize the faces and voices of the key people (e.g., parents, grandparents, brothers and sisters, child care givers) in their lives.
- B.3.28 Prefer to look at faces of key people.
- B.3.29 Demonstrate fear, caution, or curiosity with new people depending on age and temperament style.
- B.3.30 Protest separation from primary caregiver between age 12 and 18 months.
- B.3.31 Pretend to take care of a doll by feeding and other activities.
- B.3.32 Draw pictures of their family.
- B.3.33 Play the role of different family members through dramatic play.

A child can be supported by an adult who:

- Says good-bye when leaving the child rather than sneaking out.
- Points family members out from photos.
- Helps the child identify and name family members and their relationships and roles.
- Assists the child in making a family book with pictures and drawings of members.
- Tapes recordings of grandparents reading the child's favorite stories.
- Talks about ways your child is the same or different from other children.

How it looks in everyday activities:

Denise and Luis are best friends and next door neighbors. Their mothers like to share child care so each one can have time for errands each week. One Tuesday the children are at Luis' house for lunch. Gabriella, Luis' mother, has prepared a dish from Puerto Rico, tostones, which are fried plantains.

Denise looks doubtfully at the tostones, which she has never tried. "I don't think I like it," she says. "It's good," Luis says, taking a bite. "I'll eat yours if you don't want it," he adds helpfully. "Maybe you can try a small bite," Gabriella suggests. "If you don't like it, you can always have a peanut butter sandwich."

"I can take a little bite" Denise agrees and does. "Hey this is good!" she says, surprised. "Can you teach my mom to make it?"

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Expresses preferences, likes, and dislikes.
- Tries something new at friend's suggestion.

Physical:

- Uses utensils to eat.

SOCIAL STUDIES BASIC FOUNDATION 3

B.3 - Geography (continued)

Environment and Society

Young children want to be an active part of their family and community. At home, they may enjoy helping with a simple chore, such as helping to feed a pet, putting clothes in a hamper, or picking up toys. They can also begin to recognize the need to care for the environment by learning about recycling or helping to clean up a community area, such as a park.

Young children are learning when they:

- B.3.34 Recognize things that do not belong in the environment (litter).
- B.3.35 Place trash in the wastebasket.
- B.3.36 Help clean up after doing an activity.
- B.3.37 Help with routines that keep the house neat.
- B.3.38 Alert others to a messy environment.
- B.3.39 Name some bad things that people do to our environment.

A child can be supported by an adult who:

- Talks with the child about caring for the environment.
- Helps the child understand environmental vocabulary (e.g., litter, purpose of trash cans).
- Assists the child with keeping room or space neat.
- Gives the child help in sorting items to recycle.
- Shows the child examples of clean and safe environments and compares them to areas not so safe and clean.

How it looks in everyday activities:

Joey and Mike, twins 30 months old, love dogs. Their dad, Marty, takes them to a friend's house one Saturday to pick out a puppy. The boys are excited to see their new pet. On the way to pick up the dog, Marty talks to the boys about pets and the chores that families who have pets need to do. "We have to check to see if our dog needs water and food," Marty says. "Drink milk," Joey suggests. "Well, no," Marty says, "Dogs like water." "OK," Joey smiles.

They arrive at the house and go inside. There are several yellow lab puppies running around in the kitchen. The boys squeal with excitement and run around with the puppies. The mother dog watches them closely as the boys gently pet the puppies. Marty touches Mike on the shoulder and signs "dog" several times. Mike, whose speech is coming a little slower than Joey's signs "dog" too. Joey signs and shouts "dog" several times as Marty completes the arrangements to take their new pet home.

At home, Marty helps Joey and Mike pour some food into the puppy's dish. "Puppy eat," Joey says and Mike signs "eat." Marty fills a bowl with water and sets it near the food. He goes into the other room, and the boys stay to watch their new friend eat. The puppy empties his bowl, and Mike carries it into the other room to show Marty. He signs "more." "Thank you," Marty says, "you know how to do this job!"

Development of a skill in one area is related to and influences other developmental areas:

Cognitive:

- Solves a problem by gaining adult help.

Communication/Literacy:

- Participates in conversation using words or signs.
- Informs another person about an event.

Physical:

- Carries an object while walking.

SOCIAL STUDIES BASIC FOUNDATION 4

B.4 - Economics

At a young age, children can begin to understand how families work together to meet their basic needs and wants for trust, safety, nurturance, food, and fun. Through senses and experiences, young children gain a beginning understanding of the role of money in purchasing and the connection between work and money. Adults play an important role in helping highlight these connections for very young children through their consistent behavior and responses.

Young children are learning when they:

- B.4.1 Choose between two or more alternatives.
- B.4.2 Prefer objects that can be held or touched and that can satisfy people's wants.
- B.4.3 Demonstrate awareness of activities that can satisfy people's wants.
- B.4.4 Assist and use money in purchasing goods.

A child can be supported by an adult who:

- Uses the names of coins and currency and provides opportunities for becoming familiar with coins and currency.
- Involves the child in using real coins and currency in everyday situations.
- Provides the child with a bank for saving coins.
- Supplies the child with materials for role-playing of different occupations.
- Takes the child to work and lets the child see you producing goods or services.
- Travels through different economic sections of the community (e.g., mall, harbor, bread factory).
- Discusses with the child the origin of items in the home (e.g., milk-cow, wooden table-tree, egg-chicken).

How it looks in everyday activities:

While Jerome takes his afternoon nap, his mother LaDonna makes a grocery list. She knows that he will be ready for an outing when he wakes up. As she gets his coat on, LaDonna talks to her son about the store and what they need to purchase.

LaDonna buckles Jerome into the cart and then takes her time walking up and down the aisles. She points out the things she will choose, so Jerome can look and see all the different things at the grocery. “Jerome, we need some fruit for lunch tomorrow,” LaDonna says. “I think Daddy will like an orange.” As Jerome nods in agreement, she hands him an orange so he can feel the bumpy rind and smell the citrus aroma. Later, LaDonna holds up two different types of cereal and helps Jerome choose one.

At the check out, LaDonna lets Jerome put some items on the counter. The cashier is friendly and Jerome smiles shyly at her. As the total is rung up, LaDonna points out the numbers on the cash register and says, “That’s how much money we need to pay the lady.” Jerome looks interested as LaDonna takes the cash from her purse and receives her change. As they walk toward the door, Jerome smiles and waves good bye back to the cashier.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Makes a choice between two objects.
- Responds appropriately to a social greeting.
- Participates in a family routine.

Communication/Literacy:

- Increases vocabulary.
- Responds to adult language.

SOCIAL STUDIES BASIC FOUNDATION 5

B.5 - Individuals, Society, and Culture

Getting Along

Young children thrive with routine, structure, and rules. Parents and other caregivers help young children learn boundaries by teaching expected behavior in the family and community. Providing opportunities to participate in many different settings (home, places of worship, stores, libraries) and events (shopping, taking a class, seeing a parade) helps young children develop a repertoire of appropriate behaviors.

Young children are learning when they:

- B.5.1 Recognize gender differences.
- B.5.2 Ask questions about physical differences.
- B.5.3 Take turns in interactions with others.
- B.5.4 Share belongings with others.
- B.5.5 Value the importance of caring for others.
- B.5.6 Work and play cooperatively with others.
- B.5.7 Use words to express feelings.
- B.5.8 Use thinking skills to resolve conflicts.
- B.5.9 Demonstrate early pretending with objects
- B.5.10 Use words to express family relationships, such as mother or grandpa

A child can be supported by an adult who:

- Gives the child opportunities to be with many other children.
- Models treating others with respect and fairness.
- Discusses with the child physical characteristics and how they can be similar and different.
- Sets and enforces limits and boundaries.
- Rewards positive behaviors.
- Provides opportunities to be with extended family members.
- Listens to expressions of feelings.
- Gives opportunities to make appropriate choices.

How it looks in everyday activities:

Ms. Cathy and Ms. Shelly work in the toddler room of a community based childcare program. The young children in the room are just starting to experience feelings of independence and a desire to do things for themselves. Marshal, a new walker and new to the toddler room, walks then drops and crawls closer to Barbie. She is playing with a large truck, pushing it back and forth and making “vroom” sounds. Marshal watches Barbie closely, and Ms. Shelly watches Marshal. Ms. Shelly whispers to Ms. Cathy, who is holding Bernard, “I think Marshal is thinking about trying to take that truck from Barbie.” “I hope not,” Ms. Cathy replies, “Barbie will fight back.”

Ms. Shelly gets another large truck and pushes it over toward Marshal. “Marshal, I think you want to play trucks with Barbie,” she says. She pushes the truck next to Barbie, modeling how to make the “vroom” sounds. Marshal watches her and the truck. Ms. Shelly waits for Marshal to make a request in some way, such as a gesture or even a word. When he reaches a hand out to the truck she says, “Yes, you want a truck,” as she pushes the truck to him. Marshal pushes the truck and approximates the “vroom” sound. He smiles as he pushes his truck next to Barbie. Barbie notices Marshal next to her and says, “Truck.” Both toddlers smile and continue to play side by side. The teacher continues to walk around the room, observing the children and looking for opportunities to support positive social actions.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Engages in side by side play.
- Responds to a social overture.

Communication/Literacy:

- Uses a gesture to make a request.
- Attends to an adult’s communication.

Physical:

- Moves from crawl to stand to walk.
- Operates a toy while sitting.

SOCIAL STUDIES BASIC FOUNDATION 5

B.5 - Individuals, Society, and Culture (continued)

Cultural Diversity

Infants and toddlers are extremely egocentric and primarily relate only to their own experiences. They have a limited but growing ability to consider the needs and wants of others. Parents and other caregivers who talk in positive ways about characteristics of individuals and groups will help the young child start to notice and appreciate, with pleasure, the similarities and differences between themselves and others.

Young children are learning when they:

- B.5.11 Recognize differences between people of different cultures and abilities.
- B.5.12 Realize that other children are more alike than different.
- B.5.13 Realize that different families live in different types of housing.
- B.5.14 Recognize community helpers.
- B.5.15 Say please and thank you.
- B.5.16 Learn social skills.
- B.5.17 Notice that some people talk differently from others.
- B.5.18 Comment on or ask questions about physical differences.

A child can be supported by an adult who:

- Uses holidays to provide opportunities for the child to learn about the customs of people around the world.
- Offers the child opportunities to taste different ethnic foods.
- Shares stories, songs, and poems about different cultures.
- Models respect and interest in other cultures.
- Talks about differences and similarities between people, cultures, and countries in positive ways.
- Gives support to a child's interest in different cultures by providing opportunities to learn about different language, foods, and activities.
- Shares stories, songs, poems, and other material about different cultures.

How it looks in everyday activities:

Mr. Matthews and his son Nelson were driving to the airport to pick up Mrs. Matthews, who was returning from a business trip to Mexico. “Nelson, do you know Mommy was in another country where they speak Spanish?” Mr. Matthews asked. “Like Dora?” Nelson wondered, thinking of one of his favorite children’s programs. “Right. They speak Spanish in Mexico like Dora does.” Mr. Matthews agreed. “And other things are different, like foods and music,” he explained.

The conversation continued when Mrs. Matthews arrived. Mrs. Matthews told Nelson there are lots of countries and people speak many languages and have many different customs. She showed him some money that she had brought from Mexico and said, “Can you remember when I went to France a few months ago? The people there speak French and I brought some different money and other things.” Nelson listened but seemed confused. As they were driving, Mr. Matthews remembered that there was an Ethnic Expo going on nearby. Since they planned to go out for dinner anyway, they decided to stop there to see if they could try some different foods and help Nelson understand about different countries.

At the Expo, there were many booths with different foods, a stage with music from many countries, and people dressed in colorful traditional outfits. The family saw a booth with Mexican food and decided to try it. Nelson enjoyed his burrito. Nelson tried on a sombrero and hit a piñata. The family walked around, trying some Greek and Chinese foods as well. Nelson played a game from Russia and listened to music from Africa. On the way home Nelson asked, “Mommy can I come on your next trip?”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Try unfamiliar activities and foods.
- Express enjoyment when experiencing different art, music, and foods.

Communication/Literacy:

- Learn and use new vocabulary.

Cognitive:

- Link ideas and experiences from the past with new things.

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PHYSICAL EDUCATION and HEALTH
BIRTH TO THREE

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PHYSICAL EDUCATION and HEALTH
BIRTH TO THREE

BASIC FOUNDATIONS FOR PHYSICAL EDUCATION AND HEALTH

Children learn through active movement. Young children need space, common materials, and opportunities for practice. Children practice movement of their large muscles through pulling up, walking, balance, running, jumping, climbing, throwing, and even dancing. We want children to be physically fit because it is important to their health, now and later. Through large motor activities, children practice fundamental movement skills that help them develop a positive self-esteem and physical competence. Through movement they may make believe they are dogs, bears, snakes, butterflies, or space people!

Children move their small muscles when they grab or hold a rattle, stack blocks, string beads for necklaces, pinch, pull, stuff, and scribble. As they interact directly with their environment, children make discoveries through the use of their senses; how big is the ball, how tall is the tower, what does this new food taste or feel like, how deep can I dig in the sand? Young children are continually refining their senses and motor skills in preparation for the refined movement of penmanship. Holding a spoon or drinking from a cup helps a child learn independence. Chewing foods builds muscles used for speech. Large and small motor activities encourage healthy bodies.

We encourage children to be creative thinkers in their play, to talk about their discoveries and creations. Children observe and model other children. They begin playing side by side and may even begin to offer to include another child in their motor activities like rolling a ball, running, or taking turns on a balance beam.



KEY FINDINGS

- ♦ Development is bi-directional—what a child does or does not do affects the caregiver's response, and what the caregiver does or does not do, in turn, has an effect on the child. Positive encouragement for active exploration and investigation, which builds motor and sensory pathways, is important. *[Marcon 2003]*
- ♦ Caregivers can facilitate sensory-motor development by providing activities that involve touching, feeling, holding, or exploring objects. Toys should be responsive to the child's actions: a variety of grasping toys that require different types of manipulation; a varied selection of skill-development materials, including nesting and stacking materials, activity boxes, and containers to be filled and emptied; a variety of balls, bells, and rattles. *[Bredekamp & Copple 1997]*
- ♦ A safe, open environment where children are most free to move is important. Playpens, infant seats, swings, and jump chairs should not be used for extended periods of time. *[Gonzalez-Mena & Eyer 1997]*
- ♦ Nutrition may affect motor development in two ways. First, inadequate nutritional intake may cause damage to the nervous system, resulting in impairment of inter-sensory functioning. Second, nutrition affects strength and energy level. Undernourished infants are apathetic and lack sufficient physical vigor and endurance to pursue motor activities. *[Smoll 1982]*
- ♦ When an adult provides play opportunities that are based on the interests of the child (indicated by attention and excitement he/she displays) it will encourage the child to keep exploring and learning. *[Dodge, 1999]*
- ♦ Movement builds the brain particularly during the first four years of life preparing the child for lifelong learning. *[Dodge, 1999]*
- ♦ Mobile infants begin to build an identity as an explorer. Opening and shutting, filling and dumping, and picking up and dropping are all activities that challenge infants' mobility and dexterity as well as their ideas about objects and what they can do. Physical activity and learning are intricately connected. Through their exploration of objects and their own physical skills, babies learn rudimentary rules of cause and effect and the use of objects as tools for specific purposes, sequence, classification, and spatial relationships. *[Bredekamp & Copple 1997]*
- ♦ The exciting result of developing new motor skills is it leads infants and toddlers to make other discoveries. As they explore, they begin to make sense of their environment. For example, as the younger infant gains control of his head, he can use his eyes and ears to locate a sound. As he learns to use fingers, hands, and wrists, he can touch, taste, and smell the pear on his highchair tray. And as he turns the pages of a book, he can identify familiar objects and recall a favorite story. *[Dombro, Colker, & Trister-Dodge 1997]*
- ♦ The development of an infant's body awareness and self-image is also derived to some extent from information obtained through sensor motor activities. As infants use their bodies and experience success or failure in motor acts, they form self-opinions that are closely related to overall personality development. The establishment of physical independence through motor control leads to feelings of self-confidence, psychological security, and independence. *[Snow 1998]*

PHYSICAL EDUCATION AND HEALTH BASIC FOUNDATION 1

B.1 - Body Awareness and Enjoyment of Motor and Sensory Experiences

Along with other senses like sight and smell, the baby's ability to notice changes in body position is present at birth. Most babies can also recognize and integrate information from more than one sensory system early in life. Over time and with experience, the young child gains a feeling of mastery and pleasure from body movement and sensation.

Young children are learning when they:

- B.1.1 Explore objects, people, and things by kicking, reaching, grasping, and pulling.
- B.1.2 Hear and feel through their activities.
- B.1.3 Become aware of themselves as separate from others.
- B.1.4 Explore the environment (e.g., bang, shake, drop, mouth).
- B.1.5 Imitate actions of others.
- B.1.6 Experience how their body moves and feels.
- B.1.7 Adjust reach to different distances.
- B.1.8 Track moving objects.
- B.1.9 Look for hidden objects (object permanence).
- B.1.10 Imitate, follow, and enjoy adult interactions during games (e.g., peek-a-boo, pat-a-cake, moving to music/dancing).
- B.1.11 Show understanding of cause and effect.
- B.1.12 Respond to an adult's imitation of playful movement activity.

A child can be supported by an adult who:

- Responds to cues for sucking.
- Talks and sings to infant, smiles, coos, sways, swings.
- Offers finger or rattle for grasping.
- Offers opportunities for child to imitate sounds and movements.
- Engages in developmentally appropriate activities related to the child's age.
- Offers child containers to practice putting or dropping things in, taking them out, hiding them, taking off and putting on lids etc.

How it looks in everyday activities:

Jason is a 15 month old with some developmental delays. He and his family participate in First Steps Early Intervention services, and he receives weekly services from a developmental therapist and an occupational therapist. The providers have talked with Jason's mother, Stephanie, about the importance of young children learning to feed themselves. Stephanie says, "I think it is fine that Jason uses his fingers to eat. I just have a problem when he sometimes smashes food into his tray or even throws it on the floor. A lot of days it seems like more food ends up on the floor than in his mouth!"

Steve, the OT, says he appreciates how a mess can be extra work for moms and dads. He then points out that messy eating and playing with food are normal for children Jason's age. "Plus," Steve says, "feeding himself helps Jason work on tolerating textures, getting better with his thumb finger grasp, and coordination." Steve goes on to remind Stephanie how these early skills will grow and grow until Jason is doing school skills like holding a pencil or cutting with scissors. "Wow. I guess a little mess is worth it when you put it like that!" Stephanie says. She asks Steve to recommend foods that will help Jason continue to improve his fine motor skills.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Demonstrates confidence in growing abilities.
- Demonstrates increasing independence.
- Plays near other toddlers and babies.

Physical:

- Uses body with increasing control.
- Uses fine and gross motor skills.
- Improves balance.

Communication/Literacy:

- Follows simple directives.
- Listens to songs and chants.

Cognitive:

- Follows pattern.
- Becomes aware of spatial terms like over, under, through.

PHYSICAL EDUCATION AND HEALTH BASIC FOUNDATION 2

B.2 - Increased Control of Body Movements: “Tummy Time”

Beginning at birth, young children start the process of gaining control over their bodies. As muscles strengthen and coordination improves, gains are seen in the ability to control the head, trunk, arms, and legs. Movement skills progress rapidly from sitting, to crawling, to cruising, to walking and even running. As children attain competence in fine and gross motor skills, they use their new capacities for fun in play and to become more self-sufficient.

Young children are learning when they:

- B.2.1 Use reflexes such as searching for something to suck, turning head to avoid obstruction of breath, and grasping an object.
- B.2.2 Develop increased control over their body parts.
- B.2.3 Wiggle, bounce, and kick.
- B.2.4 Track moving objects.
- B.2.5 Open doors, cabinets.
- B.2.6 Show interest in cause and effect.
- B.2.7 Initiate motor play.
- B.2.8 Imitate other's expressions and actions.
- B.2.9 Try putting on clothing.
- B.2.10 Turn pages in a book.
- B.2.11 Stack.
- B.2.12 Scribble with crayons or markers.
- B.2.13 Throw a ball.

A child can be supported by an adult who:

- Facilitates maximum freedom of movement by limiting clothing and providing open area for movement.
- Gives older infants space and time to practice crawling, creeping, pulling up, and walking.
- Avoids too much time in a walker, playpen, or infant swing as this may inhibit the development of important motor skills.
- Talks to the infant and provides opportunity for imitation of movements.
- Places the child on the floor and joins in play with him/her (rolling back and forth, sharing a toy, finger plays).
- Helps the child to learn to wave and clap appropriately.
- Helps the child learn to take off socks, shirts, and other clothing, encourage his labeling body parts, clothing, colors etc.
- Plays simple “daddy says” game asking the child to do something with a part of his body.
- Encourages the child to move to music.

How it looks in everyday activities:

Tonio, a 4 month old, wakes from his afternoon nap. After changing his diaper, Maria, Tonio's mom says, "Let's go outside and wait for your sister to come home from school."

Maria spreads a big blanket in a shady spot in their yard. She chooses some of Tonio's favorite toys and puts them around the blanket so he can see them. Maria smiles when she thinks about Tonio's last doctor's visit. "Well, buddy," she says, "Dr. Green says you are getting to be a big boy. She says you need lots of tummy time to get strong and learn to move around by your self." Maria puts Tonio on his stomach on the blanket and watches with satisfaction as he pushes up a little on his arms and tries to keep his head steady. Maria remembers how Dr. Green explained that tummy time builds Tonio's strength in his neck, arms, and even his fingers. "But you are important too." Dr. Green said. "Tonio will also like to hear you talk and sing." Remembering this, Maria sings a song she remembers from her own childhood. Tonio pauses in his play and smiles at his mother.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Interacts with adult in playful exchanges.
- Develops feelings of competence as motor control increases.

Physical:

- Strengthens upper body muscles, including those in neck, arms, and hands.
- Shows increasing control over body movements.

Communication/Literacy:

- Develops receptive language.
- Engages in back and forth exchange of vocalizations.

Cognitive:

- Explores as motor skills increase to learn about the world around them.
- Shows curiosity.

PHYSICAL EDUCATION AND HEALTH BASIC FOUNDATION 3

B.3 - Experiencing Competence and Building Confidence Through Exploration

After the young child gains ability to move independently by walking, skills like running, climbing, and peddling soon follow. Fine motor skills are also developing, and the child is increasingly able to do play and self help skills independently. Doing it “myself” is a source of much satisfaction, resulting in feelings of confidence, competence, and self esteem.

Young children are learning when they:

- B.3.1 Perform motor skills in progression of head control, rolling, sitting, standing, walking, running, climbing.
- B.3.2 Explore the environment (e.g., banging, shaking, throwing, dropping, climbing).
- B.3.3 Repeat actions and gain strength.
- B.3.4 Combine discrete skills through repetition and practice.
- B.3.5 Display protective responses.
- B.3.6 Use objects as tools.
- B.3.7 Explore the people and objects around them using all of their senses.
- B.3.8 Initiate motor play.
- B.3.9 Display confidence in motor and sensory ability.
- B.3.10 Increase independence and drive to master developing motor abilities.
- B.3.11 Show autonomy in self-care.
- B.3.12 Demonstrate awareness of rules for safety.
- B.3.13 Use adults as resources.
- B.3.14 Show pride in physical/personal accomplishments.

A child can be supported by an adult who:

- Places babies in new positions so they can see others from different angles.
- Baby/child proofs everything!
- Provides opportunities to explore through movement, creeping, crawling, climbing, and walking.
- Encourages exploration through various stimuli and objects.
- Exposes children to different play/physical settings and new experiences; i.e., McDonalds play land, local parks.
- Provides support and guidance as children learn to resolve differences.
- Provides opportunities for the child to participate in cooperative games without rules with peers.
- Offers playthings such as small wheel toys, baby buggies/carts to push.
- Makes available different materials for learning and exploring (sand, water, rice pans etc.).
- Offers toys for digging, sifting, cups, water play, outdoor chalk.
- Gives opportunities for self feeding, wiping the table, pouring etc.
- Provides large boxes for stacking, pushing, pulling, hiding in.

How it looks in everyday activities:

Todd, aged 20 months, and his dad, Richard, are having a fun afternoon at home. Richard follows Todd around as he explores their home. “Hey, slow down little explorer,” Richard says as he redirects Todd away from the stairs. Todd returns to the stairs many times this afternoon.

Later when Todd’s mother Kathryn returns from work, Richard says, “I think Todd might be ready to start learning to climb stairs.” “I noticed that he was interested in stairs, too” Kathryn agrees, “but our stairs are pretty steep. I don’t feel comfortable with him learning on them.” Richard nods his head in agreement as he moves Todd away from the stairs yet again. He thinks he has an idea to surprise his wife and son.

The next day when Kathryn comes home she sees Todd going up his own little set of stairs. Richard has taped together some old phone books in a stair step shape. Kathryn notices that Richard bound the catalogues together tightly so that they would not slip. Todd is grinning broadly as he climbs his steps over and over, holding tightly to daddy’s hand. “Can I have a turn too?” Kathryn asks. Todd’s smile grows even wider as he climbs his stairs with his mommy on one side and his daddy on the other.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Shows confidence by trying new things.

Communication/Literacy:

- Uses direction words related to movement (i.e., up, down, over).

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MUSIC
BIRTH TO THREE

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BASIC FOUNDATIONS FOR MUSIC

From conception, children invite, seek, and initiate musical interactions with their parents and caregivers. Long before a child goes to piano lessons, music can enrich an adult's relationship with the child. Just like the call and answer of a jazz song, a child can connect, play, and celebrate through music!

When an adult coos, sings, and plays rhythm games with the child, the adult becomes more sensitive to the child and affection is strengthened. Because music involves seeing, hearing, moving, and feeling, it uses all the senses and helps the child prepare for learning more challenging tasks like learning language. Whether trying to capture the attention of the child or soothing the child's upset state, music can be rewarding for the child and adult.



KEY FINDINGS

- ♦ Musical experiences that provide interactive, success-oriented opportunities for children are avenues for children's overall growth and development including physical, cognitive, emotional, and social development. *[Neelly, 2001]*
- ♦ Music stimulates children's music thinking and decision-making, involves multi-sensory learning strategies, encourages creativity, and guides appropriate responses that they may not otherwise have experienced. *[Neelly, 2001]*
- ♦ Children bring their own unique interests and abilities to be musically expressive and to learn through their musical play. Young children express individual responses to the music of their culture through their preferences for particular songs, instrumental music, and recordings. Therefore, the musical experiences may be adapted for a variety of children's developmental needs and interests. *[Custodero, 2002; Neelly, 2001]*
- ♦ Since music is the universal language, through music, infants and toddlers can learn respect for other cultures and develop their understanding of others. *[Mitchell and David, 1992]*
- ♦ The quality of the learning experience depends not only on musical materials but also on ways in which adults shape the experience to create personal meaning for the child. *[Neelly, 2001]*
- ♦ A variety of musical styles introduces a wide range of auditory, oral, physical, and emotional experiences that contribute to important music learning and connections. *[Neelly, 2001]*
- ♦ Children must be musically involved so that they can learn through the most natural way they know-through musical play. *[Neelly, 2001]*
- ♦ Listen to children and include their ideas and interests in planning their musical play *[Palmer, 2001]*
- ♦ Music education begins at conception. Parents are the first ones to give musical guidance to their children and provide musical experiences and stimulation that nurture a child's music abilities. *[Levinowitz, 1999]*

MUSIC BASIC FOUNDATION 1

B.1 - Experiencing Music

Music naturally delights children. Children show enjoyment of music through facial expression, vocalizations, and movement and produce music spontaneously and in imitation. Children of all ages express themselves through music. Music activities are fun for children and also benefit their cognitive, social emotional, communication, and physical development. As children grow in their appreciation of music and movement, they acquire a gift that will bring them pleasure throughout life. Young children enjoy activities that have rhythm and repetition. They love to create their own rhythmic patterns, but they also enjoy imitating actions. The infant and toddler years are very important for nurturing musical potential while music aptitude is still developing.

Young children are learning when they:

- B.1.1 Respond to familiar voices, songs, and sounds.
- B.1.2 Smile and coo to sounds the child likes.
- B.1.3 Imitate noises such as, clicking and raspberries.
- B.1.4 Toe point, leg wag, and arm wave to music.
- B.1.5 Create sounds by singing and making music.
- B.1.6 Recognize familiar melodies long before understanding the meaning of words.
- B.1.7 Behave differently depending on the types of music (e.g., calm down to lullabies; respond by moving arms and legs).
- B.1.8 Move to the music on own and with others.
- B.1.9 Imitate pat-a-cake or other familiar games.
- B.1.10 Make rhythmic patterns with objects (e.g., hitting the table with a spoon).
- B.1.11 Perform songs and dances.
- B.1.12 Learn to sing other songs.
- B.1.13 Play musical instruments, real or improvised.
- B.1.14 Make up songs and dances by themselves and along with others.
- B.1.15 Sing a favorite song again and again, just as listening to a favorite book many times over.
- B.1.16 Sing a song as a means of comfort.

A child can be supported by an adult who:

- Softly sings or hums to the baby or plays soft music.
- Follows the mood of the child (e.g., if fussy, then sing lullabies or if alert, sing play songs).
- Sings a familiar song to help the baby feel safe and secure in an unfamiliar setting.
- Plays sound games with infants (e.g., repeats sounds that the baby makes back to the adult).
- Makes up rhyming words when talking to infants and toddlers.
- Sings and dances to music.
- Provides a variety of rattles and musical toys.
- Encourages child-made music.
- Encourages the child to move to the music.
- Encourages the child to point out common sounds (e.g., clock ticking, birds singing).
- Plays a variety of music (e.g., jazz, children's music, top 40, and other cultures).
- Uses music as a part of daily routine.
- Sings songs with finger plays (e.g., "The Itsy Bitsy Spider").
- Encourages children to imitate the sounds of animals.
- Plays different musical games (e.g., "Ring-Around-the-Rosie", "Old MacDonald").
- Uses music to connect to the child's roots and heritage (e.g., African-American spiritual, a Yiddish or Irish lullaby, an American or Mexican folk song).

How it looks in everyday activities:

Jan and several colleagues were working late to complete an important project one night. Because it was near dinner time, they ordered pizza. Carla's three year-old son, Trevor, and her husband Bob stopped by to pick her up. "I'll go finish up a few more details in my office if you guys can clear up this pizza," Jan offered. Carla agreed that was a good plan.

As Jan logged off her computer, she heard laughter and singing in the hallway. Peering out of her door, Jan laughed out loud as she saw a parade coming down the hallway! Trevor, now dressed as an impromptu drum major complete with bright red hat and baton, led the way. Behind him were three smiling adults dressed as a fireman, construction worker, and police officer. Trevor sang a newly created song celebrating "worker people" and the grown-ups joined in. After a few trips up and down the hall, Trevor announced "We need a break; for more pizza!" As the grown-ups followed their leader down the hall, Jan observed to Carla "If you have to be worker people, it is a lot more fun to do it with a parade and a song."

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Expresses emotion through music; shares music; demonstrates leadership.

Physical:

- Uses large muscles; moves to music.

Communication/Literacy:

- Experiments with voice; sings during activity; uses descriptive words.

Cognitive:

- Experiments with a variety of sounds; creates patterns with voice and motion; pretends.

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VISUAL ARTS
BIRTH TO THREE

VISUAL ARTS
BIRTH TO THREE

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BIRTH TO THREE

BASIC FOUNDATIONS FOR VISUAL ARTS

Art becomes a part of a child's life from birth. It takes many shapes and forms. Jim Greenman (1988) in *Caring Spaces, Learning Places: Children's Environments That Work* explains "Art is universally appealing to children. Smearing, scribbling, painting, sticking together, shaping into forms, experimenting with color, and all the other possible means of self-expression begin in infancy. Art is a way children create beauty, powerfully impose their order and will on objects, explore color and substance, and create offerings to proudly share with and bestow on others."



KEY FINDINGS

- ♦ **Art is basic to child development. It is necessary, not just nice. Art activities help children develop eye-hand coordination and fine motor skills, communication skills, self-esteem that comes from accomplishment and imagination.** *[Hurwitz, A. & Day M., 1991; Cherry, 1999]*
- ♦ **For young children, the process is more important than the product. The richness of experience of art rather than perfection is the point of the whole thing. In art, young children are praised for the uniqueness of their work rather than its uniformity to a predetermined standard or response.** *[Hurwitz & Day, 1991; Greenman, 1988; Trister Dodge, D. & Colker, L.J. 1999]*
- ♦ **Visual arts are seen as an additional “language,” one in which children’s ideas and concepts are expressed in art media.** *[Edwards, Gandini & Forman, 1998]*
- ♦ **Art is a universal language. Drawing is a universal activity for children around the world.** *[Hurwitz, A. & Day M. 1991]*
- ♦ **Adult input is an essential to young children’s artistic explorations. Adults need to create an environment where children are free to create art. To produce art, children need many interesting and meaningful experiences and encouragement to think, talk, and create art in response to their experience.** *[Althouse, Johnson, & Mitchell, 2003; Seefeldt 1995]*
- ♦ **Young children often communicate through drawing, including their scribbling.** *[Althouse et al. 2003]*
- ♦ **High-quality early childhood programs include art appreciation and aesthetic education in their curriculum, as well as an abundance of expressive art experiences.** *[Shiller 1995]*

VISUAL ARTS BASIC FOUNDATION 1

B.1 - Responding To and Creating Visual Art

Children enjoy art and express how they feel, think, and view the world through art. Art experiences begin long before a child can hold a crayon or paint with a brush. When a baby notices a brightly colored toy or a pattern on his father's shirt, he is beginning to appreciate beauty. Art activities for very young children should focus on encouraging creativity. The process is more important than the product. The child will eventually express beauty through more traditional art experiences such as drawing, painting and pasting materials, or sculpting and molding materials.

Young children are learning when they:

- B.1.1 Focus on motions and movement.
- B.1.2 Respond to the world with eyes, fingers, and mouth.
- B.1.3 Prefer looking at black and white colors and patterns during the first month rather than other colors.
- B.1.4 Delight in touch and feel of materials rather than what is being produced.
- B.1.5 Scribble (e.g., pictures rarely look like a recognizable object).
- B.1.6 Assign meaning to scribbles.
- B.1.7 Watch an activity before getting involved.
- B.1.8 Create patterns through art, blocks, and other objects in their environment.
- B.1.9 Express self through dramatic play.
- B.1.10 Use dance and visual art as a vehicle for self-expression.
- B.1.11 Randomly distribute marks in different areas of paper.
- B.1.12 Paint with fingers, draw with crayons, and mold with dough.
- B.1.13 Show individuality in artwork.
- B.1.14 Pretend through role play.
- B.1.15 Use different colors, shapes, and textures to create form and meaning.

A child can be supported by an adult who:

- Places pictures where the baby can focus or hangs a colorful mobile on the crib.
- Encourages babies' safe and creative use of common household items (e.g., margarine tubs, empty boxes, pots and pans).
- Provides opportunities to draw with paint, crayons, or chalk (safe and non-toxic).
- Provides variety of shapes of crayons and chalk and large sheets of sturdy paper or cardboard for drawing.
- Remembers that the process of creating is more important than the product.
- Encourages children to do art in their own way.
- Plans art experiences according to the physical, emotional, and intellectual development of the child.
- Uses child's imagination as a motivation for art. Avoids forcing the child to classify or name what is created.
- Invites the child to describe what is created and avoids judgment.
- Encourages the child to decide what to draw, paint, or make.
- Views art materials as meaningful rather than a waste of time and messy.
- Uses a variety of art media for self-expression.
- Displays child's art within child's eye-level.
- Uses child's art as part of daily routine (e.g., decorating cookies).
- Provides safe materials.
- Uses the outdoors as a place for art (e.g., walls or fences as a place for art, side-walk painting, water and sand, rock and wood).

How it looks in everyday activities:

Jane is a toddler teacher in a center based program. This week she has decided to have several lessons incorporating zoo animals. Jane sets up an area with white paper cut in zebra shapes, small shallow trays of black paint, brushes, and some little plastic zebras for models. Jane shows the boys and girls how to brush a black stripe on the white zebra shape.

An Ping watches Jane thoughtfully. She picks up a plastic zebra and turns it over a few times. Then she carefully puts the zebra's feet in the tray, coating them with paint. An Ping stamps the small animal on the paper, leaving a feet-shaped imprint. Jane smiles at An Ping and says, "An Ping has an idea to paint with the zebra's feet!"

Next An Ping puts her hands in the paint and makes some handprints on the paper. Jane asks her if she would like a bigger piece of paper and An Ping happily agrees. Two other children join An Ping and they make a large painting of black handprints. When An Ping's father comes to pick her up later that day, he enjoys seeing the painting she made. Jane explains how An Ping used her imagination and creativity to make an original art project. An Ping's father says, "Thank you Jane for letting An Ping be herself!"

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Cooperates to complete a project with other children.
- Tells others about ideas and thoughts.

Cognitive:

- Changes actions to fit new situation.
- Adapts an activity to suit own interests and ideas.

Physical:

- Uses fingers and hands in painting and stamping.

Communication/Literacy:

- Requests more of something (paints, paper).

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Three to Five Years -Early Childhood- Foundations

ENGLISH/LANGUAGE ARTS
THREE TO FIVE

ENGLISH/LANGUAGE ARTS
THREE TO FIVE

ENGLISH/LANGUAGE ARTS
THREE TO FIVE

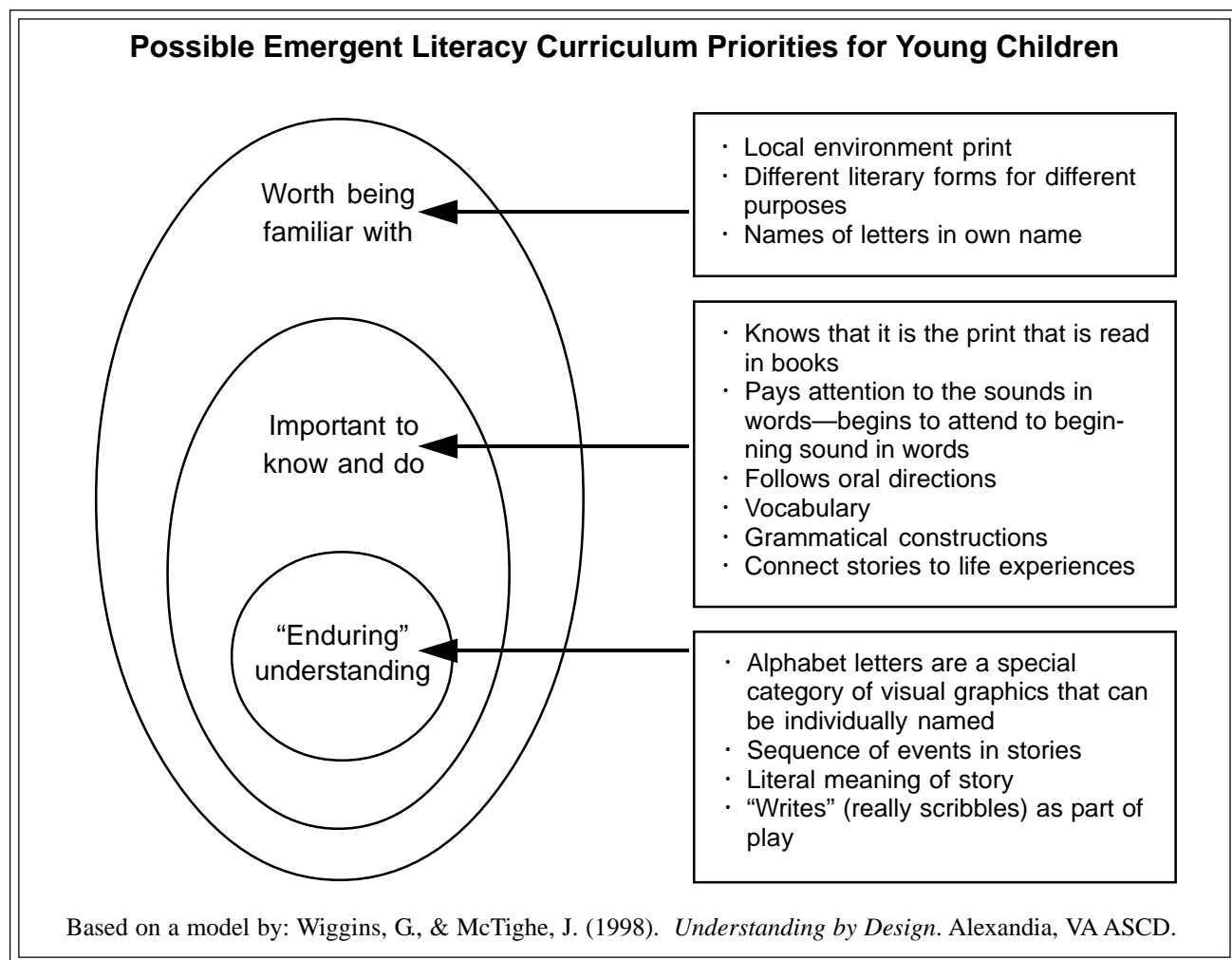
FOUNDATIONS FOR ENGLISH/LANGUAGE ARTS

Children are language learners from the first days of life, when babies begin to experiment with sounds. Learning their native language is the most important task the child accomplishes in becoming a functioning human being. In our modern society, gaining the ability to extend spoken language into reading and writing is even more essential than in previous generations. We must do everything we can to assure every child becomes literate.

Recent research has extended our understanding of how and when language is acquired and the critical importance of the early years. We have also gained a heightened appreciation of the adult's role in the success—or failure—of a child in becoming literate. It is of utmost importance that we as parents, teachers, and caregivers of young children gain an appreciation of the role we play as models and teachers of the language arts: speaking, listening, writing, and reading.

The following sections will outline major areas of language learning, how we might expect to see children ages three to five exercising their emerging language skills, and how adults and older children can support and extend the natural interest and internal drive of children to learn language.

A cautionary note: The following sections apply to a wide age range and acknowledge that children grow and develop at widely different paces.



KEY FINDINGS

- ♦ **Adults who live and interact regularly with children can profoundly influence the quality and quantity of their literacy experiences.**
[National Research Council, 1998]
- ♦ **Reading and writing for meaning are paramount.**
[Ministry of Education, 1996; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC), 1998; Bredekamp, S. & Copple, C., (Eds.), 1997; National Research Council, 1999]
- ♦ **Writing should have purpose, meaning, and an audience.**
[Ministry of Education, 1996; McCarrier, A. Pinnell, G., & Fountas, I., 2000; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC), 1998; National Research Council, 1999]
- ♦ **Reading and writing are inseparable processes.**
[Ministry of Education, 1996; McCarrier, A. Pinnell, G., & Fountas, I., 2000; National Research Council, 1999]
- ♦ **Children learn to read and write by reading and writing many different kinds of text.**
[Ministry of Education, 1996; McCarrier, A. Pinnell, G., & Fountas, I., 2000; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC), 1998]
- ♦ **Good first teaching is essential for continuing success in reading and writing.**
[Ministry of Education, 1996; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC) 1998; Bredekamp, S. & Copple, C., (Eds.), 1997; National Research Council, 1999]
- ♦ **Reading, writing, speaking, listening, and thinking develop simultaneously as learners grow into literacy.**
[McCarrier, A. Pinnell, G., & Fountas, I., 2000; International Reading Association (IRA)/National Association for the Education of Young People (NAEYC) 1998; National Research Council, 1999]
- ♦ **Speaking and listening are the foundation skills for reading and writing.**
[National Center on Education and the Economy, 2001]
- ♦ **A strong basis in a first language promotes school achievement in a second language.**
[Neuman, S.B., Copple, C., & Bredekamp, S., (Eds.), 1999]

ENGLISH/LANGUAGE ARTS FOUNDATION 1

F.1 - READING: Word Recognition, Fluency, and Vocabulary Development

Concepts About Print

Beginning readers must first recognize that print carries a message or a concept. Young children may begin 'reading' by pointing to the pictures and talking about them. Later, they will begin to put the pictures together to tell a story. Print awareness occurs when a child attempts to attend to the print while 'reading.' Print awareness is a major predictor of a child's future reading achievement and serves as the foundation upon which phonological and conceptual skills are built.

Young children are learning when they:

- F.1.1 Pretend to read a book.
- F.1.2 Turn one page at a time.
- F.1.3 Name objects from a picture book.
- F.1.4 Hold book right side up, looking at pages and pictures.
- F.1.5 Turn pages from front to back.
- F.1.6 Identify five common signs or symbols.
- F.1.7 Tell something that a favorite character does in a story.
- F.1.8 Follow printed words as a story is read or caption as a video is played.
- F.1.9 Distinguish print from pictures.
- F.1.10 Tell a story while holding a book.
- F.1.11 Read own writing (e.g., gives meaning to own writing by "reading what it says").
- F.1.12 Name 13 uppercase letters.
- F.1.13 Point to and name six letters.
- F.1.14 Watch and listen to a story to completion or for ten or more minutes.

A child can be supported by an adult who:

- Provides the child with a wide range of books and appropriate printed materials.
- Points out print common in the child's environment: storefronts, trucks, billboards, signs, tags, food, coins, cans, etc.
- Models reading and writing for different purposes.
- Reads to child daily in such a way that the child can examine the pictures, discuss all aspects of meaning, and become aware of the format of print.
- Encourages child to discuss what has been read.
- Reads a book many times and points out repeated words and length of words and their sounds.
- Points out individual letters and names them as the opportunity arises.

How it looks in everyday activities:

Building concepts about print

Yakiko, Laura, and Maria are playing school at Maria's house. Maria says, "I'll be the teacher and you are the kids". She tells the other girls where to sit, and then she sits in front of her friends and pretends to read a familiar story. Maria holds the book right side up and facing Yakiko and Laura as she has often seen the lady at the library do during story time. She runs her finger across the words as she retells the story from memory.

Maria's mother, Mrs. Castellanos, peeks in and smiles as she notices that the girls are playing school. When the book is done, she asks, "What else do you do at school?" The girls answer that they color and write at school, so Mrs. Castellanos brings materials including markers, paper, scissors, tape, and more books.

Yakiko and Maria draw pictures and put the pages together to make their own books. Mrs. Castellanos notices that Laura lags behind, seeming unsure about what to do first. She asks questions about the characters and events in the story. These questions help Laura organize her ideas and soon her book is taking shape. As Laura starts to work, Mrs. Castellanos says, "Maybe you can each take a turn reading your books when you are done." The girls smile and shout their agreement.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Demonstrates comfort with self, own skills, and abilities.
- Plays and works cooperatively.

Cognitive:

- Recognizes the association between spoken and written words.
- Assumes a pretend role in make-believe play.

Physical:

- Develops fine motor control using writing and drawing tools.

Self-help:

- Gains ability to be self-directed.
- Uses materials purposely.

Communication/Literacy:

- Speaks clearly enough to be understood by peers and adults.
- Listens with interest to stories read aloud.
- Shows an interest in reading-related activities.

ENGLISH/LANGUAGE ARTS FOUNDATION 1

F.1 - READING: Word Recognition, Fluency, and Vocabulary Development (cont.)

Phonological Awareness

Phonological awareness is an “ear” skill. It is the ability to hear and manipulate the sounds of words, recognize that speech is composed of sounds, that some words rhyme, and that sounds can be manipulated. This is a foundation for phonemic awareness. Phonemic awareness is the ability to recognize the smallest units of sounds in words (the word pink begins with the sound /p/).

Learning to read requires that children have considerable awareness of the sound structure of spoken language. Few young children acquire phonemic awareness unless teachers and other adults take the opportunity to draw attention to the sounds and phonemes of spoken words.

Young children are learning when they:

- F.1.15 Match the sound that begins own name with the sound that begins another word or name.
- F.1.16 Identify first letter of own name.
- F.1.17 Generate sounds from letters.
- F.1.18 Recognize that words that look alike may sound alike.
- F.1.19 Imitate simple rhymes.
- F.1.20 Sing the alphabet song.
- F.1.21 Recite/sing one rhyme or song.
- F.1.22 Generate and blend the sounds of letter patterns into recognizable words.
- F.1.23 Clap out syllables in word songs.

A child can be supported by an adult who:

- Provides opportunities for the child to experiment and play with the sounds words make through songs, rhymes, nonsense words, alliterations, and music (e.g., clapping out the syllables of names or words with their cadence).
- When reading familiar rhymes, stops before a rhyming word and encourages the child to fill in the rhyme.
- Provides an environment which includes rhythm instruments, children’s music and movement tapes, and a center where children may listen to a variety of story and sound tapes.
- Supports the child’s early attempts to write, as a way to focus on the sounds that make up the words.

How it looks in everyday activities:

Using names to build phonological awareness

During circle time, preschool teacher Mr. Jeffers says, “Boys and girls, let’s see whose name begins with the same sound as mine, Jeffers.” He exaggerates the “J” sound so the students can hear it and shows a card with the letter “J” printed on it as he talks. Mr. Jeffers starts with Jamal, saying “Jamal. Jeffers. Does Jamal’s name start with the same sound as Jeffers?” Several students shout out “Yes” but others seem unsure. Mr. Jeffers sees some students talking together and hears others repeating “Jamal” to themselves as they think about the answer. To encourage more students to participate, Mr. Jeffers says, “Show thumbs up if you think that Jamal’s name starts with the same sound as Jeffers.”

While Mr. Jeffers talks, Linda, an interpreter who helps Sarah, signs his words. Sarah attends closely to Linda, imitating the sign for “J” and raising a “thumbs up” along with her classmates. Linda smiles when she notices some of the hearing children are signing “J” as well.

Mr. Jeffers goes around the room saying each student’s name, followed by his own. The students answer each time until they find all of the children whose names have the same beginning sound as Jeffers.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Participates in group activities.

Cognitive:

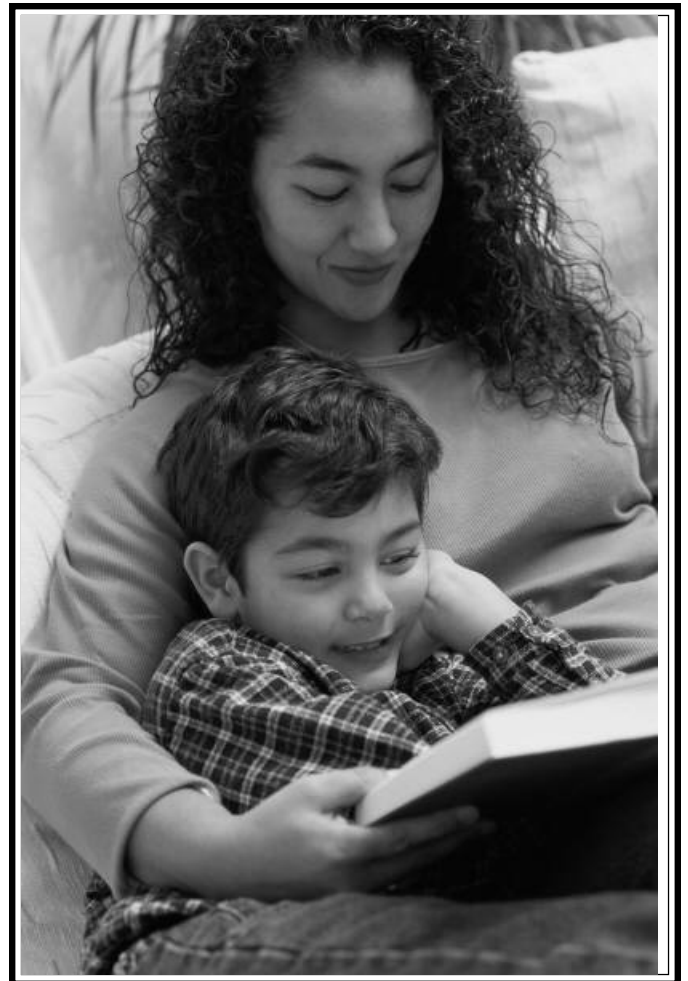
- Learns to identify matching beginning sounds.
- Connects a letter with its beginning sound.

Physical:

- Engages in small motor movement.

Communication/Literacy:

- Begins to recognize consonant sounds and words beginning with the same sound.



ENGLISH/LANGUAGE ARTS FOUNDATION 1

F.1 - READING: Word Recognition, Fluency, and Vocabulary Development (cont.)

Decoding and Word Recognition

Decoding and word recognition begin when a child understands that there is a relationship between letters and sounds, and that letters put together form words. Adults have a critical role in discerning when experiences with language and reading prepare a child to enter into another level of literacy development. Adults also create and utilize the “teachable moments” when the child begins to see how letters form words. The most important thing that adults do is observe and listen to the child and provide the experiences needed to move to the next level of decoding skills.

Young children are learning when they:

- F.1.24 Recognize own name in isolated print.
- F.1.25 Match the sound that begins own name with the sound that begins another word or name.
- F.1.26 Match like letters.
- F.1.27 Match the same letter in different styles (e.g., signs, books, newspaper).
- F.1.28 Generate and blend the sounds of letter patterns into recognizable words.
- F.1.29 Recognize that words that look alike may sound alike.
- F.1.30 Identify five common signs or symbols.
- F.1.31 Point to words in a book while telling a story.
- F.1.32 Point to a title of a book.
- F.1.33 Match upper to lower case letters.
- F.1.34 Put letter shapes or tiles in alphabetical order.

A child can be supported by an adult who:

- Demonstrates the written form of the child’s name throughout the environment.
- Draws attention to letters and words and their relationship.
- Reads alphabet books.
- Matches sounds with printed letters, beginning with the letters found in the child’s name or other familiar words.
- Encourages the child to figure out the meaning of the print using the repertoire of known letters and cues and challenges him to be a “print detective”.
- Helps the child decipher the similarities and differences in letter formation.
- Helps the child explore different styles and ways letters and words are written (e.g., *Sam*, **Sam**).
- Draws attention to the relationship between words and pictures.
- Demonstrates that letters grouped together make words by pointing to the words as they read or write a story, a label, a letter, and a sign.

How it looks in everyday activities:

Decoding and word recognition

Each month, Mrs. Garcia, the preschool teacher, cuts out paper shapes and prints each student's name on the shape. These shapes will be on a table each morning when the students enter the classroom. Each student locates their own name and pins their shape on the board. This activity helps the children build recognition of their own and other's names. For October, Mrs. Garcia chooses a ghost shape.

Mrs. Garcia held up one shape and said, "What does this look like?" The students eagerly raise their hands to answer. "Does anyone know whose name is on this ghost?" she asks. Several children raise their hands, and Mrs. Garcia then lets each child find their own name.

The teaching assistant, Ping, passes out glue sticks and with Mrs. Garcia helps the children trace over their names on the ghosts. Some of the children say the letter names and sounds as they trace. Cameron and Tristin have trouble controlling their fine motor movements, so they are helped with a hand over hand strategy. Next Ping provides colored sand to pour over the glue. Mrs. Garcia encourages the students to touch the sand and feel the shape of the letters in their names.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Participates in group activities.
- Follows simple rules and directions.

Cognitive:

- Follows directions that involve a sequence of actions.
- Copies and traces own name.
- Differentiates between letters.

Physical:

- Uses eye-hand coordination to perform fine motor tasks.
- Manipulates tools using fine motor skills (glue stick, glitter).

Self-help:

- Learns to recognize name and that of peers; an important step in independence for children.

Communication/Literacy:

- Understands that letters are grouped together to form names.
- Understands words have meaning.
- Begins to recognize name in print.
- Begins to differentiate between different names (words).

ENGLISH/LANGUAGE ARTS FOUNDATION 1

F.1 - READING: Word Recognition, Fluency, and Vocabulary Development (cont.)

Vocabulary and Concept Development

The young child who has experienced both quality and quantity of talking and conversations and has had the opportunity to build an extensive vocabulary, is a child poised for success in early literacy learning. The best preparation in the early years for success in reading is to expose the child to a broad range of experiences and to anticipate, participate, and recall what is experienced with as much verbal and written language as the child is developmentally able to absorb. The more the child enters into the exchange of information around what is seen, heard, and experienced, the better able the child is to acquire the concepts and language that contribute to learning to read.

Young children are learning when they:

- F.1.35 Name objects from picture books.
- F.1.36 Name sounds heard in familiar environment.
- F.1.37 Ask and answer simple questions about a story being read.
- F.1.38 Ask adult to read printed information.
- F.1.39 Talk about action pictures of family, pets, or self.
- F.1.40 Tell one thing that happens in a familiar story.
- F.1.41 Tell simple story from pictures and books.
- F.1.42 Pretend to do something or be someone.
- F.1.43 Use new vocabulary learned from experiences.
- F.1.44 Act out familiar, scripted events and routines.

A child can be supported by an adult who:

- Sets aside a regular talk time to have a conversation about the child's life.
- During daily routines, like reading and eating, takes time to talk with the child.
- Watches a TV program with the child and talks with them about it.
- Reinforces and extends the child's vocabulary usage. (e.g., Child: "There's a dog out there." Adult: "You're right, there is a big, black dog in our back yard.")
- Lets the child control the subject of the conversation and encourages efforts to use new words.
- Reads with the child in a way that makes the child become an active participant by asking the child to respond to questions about the story and the pictures.
- Encourages and models verbal interaction with other children and adults. (ELL)
- Talks with the child about trips to libraries, museums, movies, and parks.

How it looks in everyday activities:

Developing vocabulary and concepts

Miguel and his grandfather, Abuelo Luis, are enjoying a walk through a local park. Abuelo Luis says in Spanish, “Miguel, look! A bird’s nest.” Miguel is interested in the nest, which is in a small tree. He asks if he can see the chicken that lives in the nest. Abuelo Luis laughs kindly and then explains that chickens do not have nests in trees. He tells Miguel that different birds have different kinds of nests. As they peer into the nest, Miguel and Abuelo Luis see that the eggs are blue. Abuelo Luis sees a robin in another nearby tree and points her out to Miguel. He explains that the eggs belong to the robin, using both Spanish and English words.

Miguel and his grandfather continue their walk. When a cardinal flies by, Miguel asks, “It is a red robin?” Abuelo Luis smiles and explains that there are many different kinds of birds with different colors, shapes, and nests. He asks Miguel if he would like to visit the library to learn more about different birds.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Interacts easily with familiar adults.
- Bonds with grandfather through conversation and exploration.
- Enjoys and appreciates nature.

Cognitive:

- Learns new words and concepts with real life observations and experiences.
- Learns the new words in primary language as well as in English.

Physical:

- Moves with balance and control to perform large motor tasks (walking).

Self-help:

- Learns the library can be utilized as a resource to find more information about a concept.

Communication/Literacy:

- Develops communication abilities through conversation in primary and secondary languages.
- Uses language for a variety of purposes.
- Begins to use information books to learn more about a topic.

ENGLISH/LANGUAGE ARTS FOUNDATION 2

F.2 - READING: Reading Comprehension

Structural Features of Informational and Technical Materials

In building a foundation for reading and understanding a variety of materials, young children need experiences with language and a variety of reading materials. They need to see adults obtaining and using information from many different printed sources: recipes, manuals, newspapers, Websites, books, encyclopedias, and many others. Young children learn that books and technical materials are a major source of needed and useful information. They also begin to recognize the different formats in which informational materials come.

Young children are learning when they:

- F.2.1 Identify a favorite story.
- F.2.2 Request or select a story by the title of the book.
- F.2.3 Tell simple stories from pictures and books.
- F.2.4 Express what might happen after the action in a picture.
- F.2.5 Tell one thing that happens in a familiar story.
- F.2.6 Use personal experiences to answer questions about stories.
- F.2.7 Follow pages that accompany a story on audiotape or CD.
- F.2.8 Identify the beginning, middle, and end of the story.

A child can be supported by an adult who:

- Models finding, organizing, and using information from books and other technical materials.
- Observes the child's interests and supports this through books, audiotapes, videotapes, and other materials.
- Takes the child to the library and introduces the child to how and where materials are located and used.
- Provides books, computers, tapes, and music related to the interests of the child.
- Learns to select software and Internet Websites that are appropriate for young children.

How it looks in everyday activities:

Building awareness of reading and technical materials being a source of information

During outdoor play time, Miss Foster noticed that the boys and girls in her four-year old class were spending more and more time watching a work crew. Curious, she walked over to see the workers were using large, interesting equipment to dig a trench and install new telephone cable. “Look!” shouted Marta, pointing at a worker operating a large yellow machine “He’s digging to China.”

“No he isn’t,” countered her best friend Serena. “You can’t dig to China.”

“Then what’s he doing?” Marta wondered, looking at Miss Foster.

Miss Foster said, “I think he is putting in a cable.” At this the boys and girls had many questions, comments, and ideas about what the workers were doing. Miss Foster listened and helped steer the conversation with careful questions, such as “I wonder if the cable they are laying is for telephone, or television, or for electricity?”

When it was time to go back inside, Miss Foster reminded the boys and girls about some books they had used before to find out how things work. With her help, the children found some information about telephones and cables. After reading the information in the books, the children had even more questions. Miss Foster asked, “Where else can we learn about telephones?” Steven shouted, “Ask my mommy!” Miss Foster knew that Steven’s mom worked for a phone company, so she made a mental note to ask her for some old phones the children could examine and take apart later.

“Great idea” Miss Foster said, “Moms and Dads know lots of things. What else can we do?” Marta said, “My Mommy gets books from the library,” and Serena added, “Daddy gets stuff from the computer.” Miss Foster knew that Internet information would likely be too detailed for her four-year olds. However, she decided to download some pages from the Internet anyway, because doing so would help the children see the many ways that we have to learn about interesting things. The children watched as she searched for sites, helped her choose a site to review, and then looked at the pages about telephones.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Observes and learns with others.
- Explores and finds new information.

Cognitive:

- Learns new words and concepts with real life observations and experiences.
- Asks questions to discover more information.

Self-help:

- Learns the library and Internet can be utilized as a resource to find more information about a concept.

Communication/Literacy:

- Develops communication abilities through conversation.
- Uses language for a variety of purposes.
- Begins to use information books and the Internet to learn more about a topic.

ENGLISH/LANGUAGE ARTS FOUNDATION 3

F.3 - READING: Literary Response and Analysis

Emergent Literacy with Appropriate Books and Stories

Young children need to be exposed to many types of books and stories to help them develop the habit of reading as lifelong learning. Children love the intimacy of reading with an adult. Teachers, parents, and caregivers should find time daily to read with every child.

Young children are learning when they:

- F.3.1 Find named pictures or textures in book.
- F.3.2 Actively look for or keep attending to things that an adult points to, shows, or talks about.
- F.3.3 Watch and listen to a story to completion or for ten minutes or more.
- F.3.4 Ask adult to read printed information.
- F.3.5 Ask questions and make comments about a story being read.
- F.3.6 Use personal information to answer questions about a story.
- F.3.7 Tell something that a favorite character does in a story.
- F.3.8 Describe a picture in a book.
- F.3.9 Hold a book right side up, looking at pages and pictures.
- F.3.10 Turn pages from front to back.
- F.3.11 Follow reader's finger as a story is read.
- F.3.12 Tell a story while holding a book.
- F.3.13 Talk about the cover and illustrations prior to the story being read.
- F.3.14 Request or select a story by the title.
- F.3.15 Identify a favorite story.
- F.3.16 Act out familiar, scripted events and routines.
- F.3.17 Identify a location where he/she is going or has been.
- F.3.18 Identify a location of a caregiver if not present.
- F.3.19 Recognize print in media other than a book.
- F.3.20 Identify two characters that interact in a story.
- F.3.21 Recall if something truly happened.

A child can be supported by an adult who:

- Reads to and with the child daily.
- Reads and rereads predictable texts to the child.
- Exposes the child to a variety of books by visiting the library, bookstores, or joining a book club.
- Provides many types of reading material, including information books, stories, poetry, alphabet and counting books, and wordless picture books.
- Maintains a comfortable, cozy place where the child can read alone, with the adult, or with a friend.
- While reading with the child, asks questions to help initiate thinking about the plot and characters.
- Provides opportunities for the child to respond to stories in a variety of ways (e.g., acting, talking, dancing, creating a picture).
- Shares many different types of literature with the child and discusses the main parts (characters, setting, etc.).
- Includes non-English books and stories to help support a child whose first language is not English.

How it looks in everyday activities:

Supporting emerging literacy skills

Using the picture walk technique, Mrs. Smith introduces *The Three Little Pigs* by Paul Galdone to her preschool class. She sits with the students and discusses the cover and each illustration one at a time. The students talk about what they see in the pictures and predict what might happen next. April hides her eyes whenever the wolf is in the picture, but Mack and Carlos cheer for the wolf. Mack suggests that the wolf might eat the pigs! After all of the pictures have been reviewed, Mrs. Smith reads the entire story. She encourages the students to talk about the story and whether they guessed right about what would happen. April says, “See? The pigs win!” “Yeah, I guess” says Mack, a little disappointed.

Mrs. Smith helps the children name and talk about the important parts of the story. Working together, the boys and girls draw their own pictures to go with the story parts. April likes drawing the pigs, and Carlos and Mack draw the wolf with many teeth. Mrs. Smith writes down the children’s ideas about what is happening in their pictures, using another strategy called shared writing. April and some other students work with Mrs. Smith to arrange the pictures into a sequence and to read their version of the story. During free time later that day, several children act out the story using their pictures as a script.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Participates in group experiences.
- Recognizes the phenomena of learning from others.

Cognitive:

- Identifies the main parts of a story in sequence.
- Develops an understanding that print has meaning.

Physical:

- Uses small motor skills to draw pictures.
- Uses gross motor skills in the reenactment of the story.

Communication/Literacy:

- Begins to understand story structure.
- Retells information from a story.
- Communicates ideas verbally to others.
- Guesses what will happen next in a story using pictures as a guide.

ENGLISH/LANGUAGE ARTS FOUNDATION 4

F.4 - WRITING: Writing Process

Organization and Focus

Various components of literacy, including writing, develop early in life in an interrelated manner. Children who see themselves as readers and writers engage in a variety of literacy-related behaviors. Early attempts and approximations at standard writing (often viewed as “just scribbles” by adults) are legitimate elements of literacy development. Children’s acquisition of writing typically follows general developmental stages, and individual children will become writers at different rates and through a variety of activities. Learning to write involves much more than learning to form alphabet letters. It involves understanding:

- *The level of speech alphabet letters represent.*
- *The ways in which print is organized on a page.*
- *The purposes for which writing is used.*
- *The various conventions associated with various purposes.*
- *That the writer must think about the reader’s reaction to the writing. (Schickedanz, 1999)*

Access to writing materials and adults who give encouragement and positive feedback are critical to children experimenting with and gaining facility in writing. Early writing experiences foster the development of key aspects of literacy such as print awareness, functions of print, and phonological awareness in young children.

Young children are learning when they:

- F.4.1 Draw pictures and scribble to generate and express ideas.
- F.4.2 Follow dictated writing read by an adult.
- F.4.3 Associate writing with words.
- F.4.4 Give writing to someone as a means of communicating.
- F.4.5 Draw at the top or bottom of the page, when requested.
- F.4.6 Position paper for writing.
- F.4.7 Write from left to right.
- F.4.8 Write using pictures, letters, and words.
- F.4.9 Use writing or symbols to share an idea with someone.
- F.4.10 Use known letters or approximations of letters to represent written language.
- F.4.11 Read own writing (e.g., give meaning to own writing by “reading what it says”).
- F.4.12 Dictate something for an adult to write down.

A child can be supported by an adult who:

- Models and discusses writing conventions: left to right, top to bottom.
- Provides the child with access to a variety of writing materials (alphabet blocks, magnetic letters, pencils, crayons, chalk, paint, rubber stamps).
- Provides daily opportunities for children to “write” at their developmental level.
- Exposes the child to a wide selection of children’s literature through multiple daily read-alouds.
- Models the writing process through adult-led **language experience** (adult records the child’s exact words).
- Models the writing process through **shared writing** (adult acts as a scribe, but more emphasis is placed on the composing process and constructing a text the children can read later).
- Models the writing process through **interactive writing** (children actively compose together, considering appropriate words, phrases, organization of text, and layout. At points selected by the adult, individual children take over or “share the pen”).
- Prompts the child to talk about their writing (picture(s), scribbling, letter approximations, etc.).
- Prompts the child to “tell me more” to encourage extensions of the child’s original writing.

How it looks in everyday activities:

Integrating oral language, writing, and reading

When Isabel arrives to spend the day at the Lewis family child care home, she hears the news that the Lewis' cat has new kittens. Excited, she repeats Mrs. Lewis' rule: "We can look but can't touch the new baby kitties" as the other children arrive. Carter, who has limited verbal language, participates by pointing and saying "cat." Mrs. Lewis expands Carter's statement, saying, "You see the little cats." After everyone has had a chance to look at the kittens, Mrs. Lewis tells the children that the kittens and their mommy need to rest. The children reluctantly agree, continuing to talk about the kittens throughout the morning, asking many questions and sharing their ideas and thoughts about cats and baby animals.

Isabel says, "Can we write about the kitties in our Big Book?" Mrs. Lewis agrees and brings out the big paper she uses when the children want to record special events. She writes a title for the story: "Tabby Has a New Family." The children are eager to tell about the kittens, and Mrs. Lewis helps them to take turns talking. She writes down their ideas with few changes, using their own words as much as possible. When his turn comes, Carter says, "Little cat" and Mrs. Lewis writes "Carter likes the little cats." As the suggestions dwindle, Mrs. Lewis reads the story back, and the children make a few changes and additions. The children move on to other activities, except for Isabel and Carter who remain interested in the kittens. Mrs. Lewis says, "I have some markers. Would you like to make some pictures to go with your story?" Isabel looks at Carter and says "Let's make a striped kitty" and Carter nods his head in agreement.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Experiences a real life situation and relates it to own family and life experiences.

Cognitive:

- Integrates and/or reinforces the concepts of oral and written language.

Physical:

- Uses writing and drawing tools with increasing control and intention.

Self-help:

- Learns that new, young life is fragile and needs protection.

Language/Literacy:

- Learns that thoughts, observations, and feelings can be set down in a written record that can be read and reread.
- Realizes that the written word remains the same.
- Recognizes print has meaning.

ENGLISH/LANGUAGE ARTS FOUNDATION 5

F.5 - WRITING: Writing Application

Different Types of Writing and Their Characteristics

Young children extend their acquisition of literacy into writing much as they did learning to talk: by seeing it used by the adults and older children in their lives and by using, initially, rudimentary forms of writing. Children need to experience the writing of oral language into symbols and the decoding of written language into speech in many different contexts and for many different purposes. They also need to see themselves and others engaging in this process in ordinary daily activities. Adults need to accept their early attempts as valid expressions.

Young children are learning then they:

- F.5.1 Associate writing with words.
- F.5.2 Add writing to a picture story.
- F.5.3 Use writing to label drawings.
- F.5.4 Draw name or a message on a card or picture.
- F.5.5 Give writing to someone as a means of communication.
- F.5.6 Scribble a message on a card or picture.
- F.5.7 Use writing or symbols to share an idea with someone.
- F.5.8 Write more than word correctly.
- F.5.9 Represent action with drawing.
- F.5.10 Follow printed words as a story is read or caption as a video is played.

A child can be supported by an adult who:

- Writes daily for specific purposes (lists, letters, messages) and discusses purposes with the child.
- Provides opportunities for the child to put his/her thoughts on paper by writing the words the child dictates to them.
- Transcribes the child's words and takes the opportunity to demonstrate ordinary conventions like: top to bottom; left to write; spaces between words; upper and lower case letters.
- Writes, displays, and points out the child's name often.
- Labels some of the important things in the child's universe.
- Uses observational assessment of children's progress and examination of children's writing to guide future activities.

How it looks in everyday activities:

Supporting the use of different types of writing

Ricardo, Gwen, and Pablo are playing in the housekeeping center in the Head Start classroom. Gwen's first language is English, and Ricardo and Pablo are fluent Spanish speakers and English language learners. Their teacher, Ms. Brenda, has provided many interesting props to support their use of writing in this play. For example, the children find a written poster menu with Spanish and English labels, pictures of many food choices with costs, paper and pencils for order taking, play money, and pretend food.

Gwen says she wants to be a waiter. Pablo tells Ricardo he will be the cook and so Ricardo decides to be a customer. Gwen shows Ricardo a menu and says, "What do you want?" Ricardo replies in Spanish, pointing to the pictures as he does so. As Ricardo shows that he wants hamburger, fries, and ice cream, Gwen imitates waiters she has seen when visiting restaurants with her parents by scribbling letters and shapes on a pad of paper. Then she says, "Coming up!" and hands the paper with the "order" to Pablo. She points to her writing, saying "He wants hamburger, fries, and ice cream".

Pablo puts the pretend food on the plate and gives it to Gwen, who returns to her customer. Gwen lays the order paper on the table and says, "This is your bill." Ricardo looks at the paper and then gives Gwen some play money. After giving Ricardo some change, Gwen shouts to some friends across the way, "Who else wants to eat?"

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Engages in conversation through their dramatic play.
- Role-plays an everyday social situation.

Cognitive:

- Uses money for exchange.

Physical:

- Engages in a series of physical actions through dramatic: play.
- Uses small motor skills.

Self-help:

- Describes some people's jobs and what is required to perform the job.
- Uses money as a form of exchange.
- Recognizes primary and secondary languages are a means of communication.

Communication/Literacy:

- Uses language for a purpose.
- Recognizes print has meaning.
- Begins writing for a purpose.

ENGLISH/LANGUAGE ARTS FOUNDATION 6

F.6 - WRITING: Writing Conventions

Handwriting and Spelling

By using a knowledge of letter names and sounds and unconventional (invented) spellings, young children develop an impressive appreciation of the phonemic structure of the English language. Children gain confidence in their growing ability to translate their communication into writing if the adults in their environment are more interested in what they are trying to say, than on their use of conventional letter formation and/or spellings. Observation may reveal that the child is actually representing what she hears adults saying. Children who are learning English or who have language delays need to have their early attempts accepted and encouraged. It is better to build confidence than correctness at this stage of writing.

Young children are learning when they:

- F.6.1 Write from left to right.
- F.6.2 Combine strokes and shapes to represent letters.
- F.6.3 Copy a vertical line.
- F.6.4 Copy a horizontal line.
- F.6.5 Copy a circle.
- F.6.6 Write letters in strings.
- F.6.7 Write using phonetically spelled words.
- F.6.8 Use different combinations of letters to achieve sounds.
- F.6.9 Write more than one word correctly.
- F.6.10 Use the correct grasp of writing tool.
- F.6.11 Imitate drawing a cross.
- F.6.12 Copy a cross.
- F.6.13 Copy an "X".
- F.6.14 Copy a square.

A child can be supported by an adult who:

- Provides many activities that foster the development of fine motor skills and strength such as finger plays, use of tools, play dough, scissors, stringing beads, lacing and manipulation of small items.
- Provides letters for the child to see, feel, and copy.
- Explores letter/sound associations with the child.
- Gives the child opportunities to use environmental print to copy when writing lists or notes.
- Gives the child opportunities to write for real purpose and explore using invented spelling.

How it looks in everyday activities:

Handwriting and spelling

Yasmina carefully chooses a red crayon as she draws a picture of herself and her father coming to school. Her teacher, Mrs. Grady, asks Yasmina to tell about her picture. Yasmina explains “It was windy when we walked to school, and I almost fell down! My Daddy helped me walk.” Mrs. Grady says, “That’s such a good story, we should write it down.” She gets lined paper and a pencil for Yasmina to use.

Yasmina starts writing her story, writing a mixture of letters, lines, and shapes, formed into several horizontal lines and using a left to right motion across the page. Mrs. Grady is pleased that Yasmina is showing some awareness of many writing conventions. She thinks about how she can support Yasmina’s interest in writing, such as by providing alphabet books, games, and puzzles.

When Yasmina’s father arrives to take her home, she happily shows him her picture and reads him her story. Mrs. Grady says, “Yasmina is doing great learning about letters and writing. Maybe she would like to show you how she can write at home.” Yasmina’s dad feels proud of her work and says on the way home, “Let’s show Mommy how you can write. Maybe you can write a note to Grandma Teresa.”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Reflects on being together with an adult.
- Expresses the events and/or feelings of coming, parting, and being at school.
- Feels competent to engage tasks.

Cognitive:

- Reproduces the picture in her memory into a two-dimensional representation.
- Uses correct direction while writing.

Physical:

- Uses eye-hand coordination and fine-motor development to draw and write.

Self-help:

- Realizes that union and separation and anticipated reunion are a normal part of human interactions.

Communication/Literacy:

- Uses drawing and writing to express a meaningful experience.
- Demonstrates beginning movement out of initial stages of writing.

ENGLISH/LANGUAGE ARTS FOUNDATION 7

F.7 - LISTENING AND SPEAKING: Listening and Speaking Skills, Strategies, and Applications

Comprehension

Young children need an environment filled with rich language and many opportunities to hear language being used for different purposes. Talking makes children familiar with words and ideas that they need to enjoy and understand fiction and nonfiction books, including math, science, history, art, and other academic subjects that they will encounter later.

Young children are learning when they:

- F.7.1 Name sounds heard in the environment.
- F.7.2 Watch and listen to a story to completion for ten minutes or more.
- F.7.3 Stay with an adult-directed activity or story for 10-15 minutes.
- F.7.4 Follow one-step spoken directions without prompts (e.g., Get your shoe).
- F.7.5 Ask and answer simple questions.
- F.7.6 Ask questions and make comments about a story being read.
- F.7.7 Classify categories of words.
- F.7.8 Identify attributes of objects.
- F.7.9 Identify categories of objects in pictures (e.g., animals).
- F.7.10 Use new vocabulary learned from experiences.
- F.7.11 Follow commands containing two familiar attributes (e.g., Get the big, red sock).
- F.7.12 Follow two-step spoken directions with prompts.
- F.7.13 Use trial and error to solve a simple problem.
- F.7.14 Generalize a solution to a new situation.
- F.7.15 Express what might happen after the action in a picture.
- F.7.16 Imitate a series of three numbers or unrelated words.
- F.7.17 Initiate turn taking in play.

A child can be supported by an adult who:

- Makes time every day to stop and listen to the child without interruptions.
- Talks to the child in the way the child should be learning to speak.
- Talks with the child using language in a naturalistic, real-life context.
- Uses story telling to encourage the use of new and interesting words.
- Provides a wide variety of materials for the child to hold, touch, play with, and manipulate.
- Has topics to talk about (e.g., toys, books, blocks, dress-up clothing, art supplies, puppets).
- Encourages the child to share ideas and experiences to expand understanding.
- Asks many open-ended questions.
- Answers the child's questions concerning words and meanings.
- Engages the child in conversations about real experiences and events and responds to the child's verbal cues.
- Provides supportive opportunities for the child to learn "school talk."

How it looks in everyday activities:

Developing comprehension

Mrs. Smith surprises her preschool class with a new visitor: a rabbit. The children are very interested in everything about the rabbit. Mrs. Smith asks questions that help the children use different vocabulary words to describe the rabbit's color, ear and eye shape, foot size, softness, and many other characteristics. Mrs. Smith models using these new words with the rabbit and later during other lessons.

Monica is worried that the rabbit is hungry and offers to feed it part of her peanut butter sandwich. Bill says, "No, rabbits only like carrots, like Bugs Bunny!" Mrs. Smith helps the class find out that rabbits like lots of different vegetables by looking in a book about small animals. Bill wonders what rabbits drink, and says, "Let's check in the book!" When they learn that rabbits need to drink water, but not milk or juice like children, Monica says "That is like my kitty."

Each day, Mrs. Smith shows the children another way to find information about the rabbit, including reading in books and magazines and using the Internet. They are surprised to learn that some rabbits are wild and enjoy collecting information about where rabbits live and sleep. When they read on Internet that a tame rabbit needs a clean home, Monica and Bill work together to clean the rabbit's cage. The students make a schedule so that each can take a turn giving the rabbit water and food.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Works with others to learn and exchange information.
- Uses inquiry techniques to discover and use new concepts and vocabulary.

Cognitive:

- Increases vocabulary and appropriate usage of words.
- Uses information for a practical purpose: care of the rabbit.

Physical:

- Uses sensory abilities.
- Adjusts touch and handling to the needs of the animal.

Self-help:

- Learns that animals need special food and balanced diets just as they do.

Communication/Literacy:

- Uses computer literacy, with adult support as needed, in finding more information about a topic.

ENGLISH/LANGUAGE ARTS FOUNDATION 7

7.1 - LISTENING AND SPEAKING: Listening and Speaking Skills, Strategies, and Applications (cont.)

Oral Communication

Young children use words to help adults and others to understand their needs, ask questions, express feelings, and solve problems. Children learn a lot when they talk out loud. In building a foundation for speaking for a variety of purposes, young children need many opportunities to formulate language rules and communicate their ideas to adults and children. Adults who care about the child's self-esteem and development of oral communication, respond to information, questions, or requests with respect, interest, and eye-contact.

Young children are learning when they:

- F.7.18 Name sounds heard in the environment.
- F.7.19 Imitate simple rhymes.
- F.7.20 Repeat simple sentences as presented.
- F.7.21 Engage in reciprocal conversations for two to three exchanges.
- F.7.21 Request permission.
- F.7.22 Use language instead of physical force to resolve conflicts, with assistance.
- F.7.23 Imitate four to five word sentences.
- F.7.24 Talk without repeating sounds and syllables in words.
- F.7.25 Use auxiliary verbs (e.g., am, is, are).
- F.7.26 Use nouns, plurals, prepositions, and verb forms frequently.
- F.7.27 Use pronouns correctly.
- F.7.28 Use six word vocalizations, signs, symbols, or gestures to communicate.
- F.7.29 Use four word vocalization signs, symbols, or gestures to tell about objects and events in the recent past and near future.
- F.7.30 Pick from two ideas to talk about.

A child can be supported by an adult who:

- Provides an environment that is familiar, comfortable, and stimulating.
- Introduces a variety of rhymes, silly verses, chants, and songs.
- Talks with the child and listens to the child frequently, encouraging sharing experiences and ideas.
- Encourages the use of words with other children and with adults to express ideas, desires, feelings, and to resolve conflicts.
- Provides opportunities for dramatic play.
- Records the child in a variety of speaking situations and allows the child to hear how he actually sounds.
- Provides opportunities for the child to interact and communicate with other children.
- Engages the child in many varied activities and experiences.
- Exposes the child to new concepts and words.
- Continually listens and responds to the child in order to assess language use, fluency, complexity, and imaginativeness.

How it looks in everyday activities:

Supporting Verbal Communication

Natalia is a preschool student whose first language is Spanish. Her father, Mr. Bowen, is a fluent English speaker and her mother is learning English. On the first day of school, Mr. Bowen accompanies Natalia to Mr. Gomez' class and helps her get settled. Mr. Bowen says, "Natalia understands everything, but she is shy in new places. She may not talk very much at first, even though she talks all the time at home."

Mr. Gomez thinks about what he knows about English language learners. He recalls that it may take students about 6 months before they start to use their new language. He decides to support Natalia's understanding and scaffold her expressive use of English throughout the day. Mr. Gomez watches Natalia during free time to see what interests her. He notices that she likes playing with a doll house, so he moves the house so that she needs to ask for help to get the house down. Natalia, motivated to play with the house, at first asks for it by pointing, then by saying the word "house" and later by asking in a sentence. Mr. Gomez supports and reinforces all of Natalia's efforts to communicate.

As the spring semester begins, Natalia seems more confident about using words and even starts to raise her hand to answer questions at times. Mr. Gomez is excited to tell Mr. Bowen that Natalia has even started to volunteer her own ideas about what she liked about a book or to tell about a picture. At the end of the school year, Natalia is a regular contributor to classroom discussions.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Experiences acceptance of self.
- Interacts in appropriate ways.
- Communicates with others in different contexts.

Cognitive:

- Integrates information gained from visual, auditory, physical, and tactile experiences.

Physical:

- Experiences use and labeling of body parts.
- Engages in many gross motor and fine motor activities.

Self-help:

- Shows self-direction by choosing activities.

Communication/Literacy:

- Extends vocabulary.
- Uses language in a variety of ways.

ENGLISH/LANGUAGE ARTS FOUNDATION 7

7.1 - LISTENING AND SPEAKING: Listening and Speaking Skills, Strategies, and Applications (cont.)

Speaking Applications

Young children need an environment filled with rich language and many opportunities to hear language being used for different purposes.

Young children are learning when they:

- F.7.31 Understand and follow a one-step direction.
- F.7.32 Use new vocabulary learned from experiences.
- F.7.33 Talk about action pictures of family, pets, or self.
- F.7.34 Tell something that a favorite character does in a story.
- F.7.35 Name objects from picture books.
- F.7.36 Tell simple stories from picture books.
- F.7.37 Communicate recent experiences.
- F.7.38 Sing the alphabet song.
- F.7.39 Give name, age, and gender upon request.
- F.7.40 Give address upon request.
- F.7.41 Tell three events in chronological order.

A child can be supported by an adult who:

- Talks with the child using language in a naturalistic, real-life context.
- Uses story telling to encourage the use of new and interesting words.
- Encourages the child to share his/her ideas and experiences and expand their understanding by asking many open-ended questions.
- Responds to the child's language explorations as if intending to mean something and provides feedback to clarify meaning (e.g., "Mommy come home?" Answer: "Yes, mommy is coming home").
- Answers the child's questions concerning words and meanings.
- Engages the child in conversations about real experiences and events and responds to the child's verbal cues.
- Provides supportive opportunities for the child to learn "school talk."

How it looks in everyday activities:

Supporting Speaking Applications

Each night at 8 p.m. Leah and her mother Olivia start their bedtime routine. Olivia knows that repeating the same actions every day builds Leah's cognitive skills such as sequencing and time sense and emotional skills such as trust and security. Olivia says, "Come on sweetie, it's time for a bath." Leah shows she has learned the routine when she says, "Then pajamas and snack!"

Once she is in bed, Leah is ready for her favorite part of the routine, a story about herself. Olivia asks, "What is Leah going to do in the story tonight?" and Leah says, "Visit grandma." So Olivia begins, "Once upon a time there was a little girl named Leah who got up extra early to go to her grandma's house!" Olivia stops at times and lets Leah add to the story. She makes sure that the story has a clear beginning, middle, and end. The story is about ordinary things that Leah likes doing. When Olivia closes the story with, "The end," Leah closes her eyes, sighs, snuggles into her blankets, and says, "That was a good story!"

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Experiences a warm, caring relationship with parent.
- Hopes, fears, happenings, legitimized by hearing them in a story.

Cognitive:

- Exercises ability to remember and order meaningful events.

Physical:

- Patterns routines to make the transition from active play to quiet.

Self-help:

- Learns to accept rituals as signals of the transition from active to quiet and social to personal.

Communication/Literacy:

- Distinguishes between events of her life and the language in stories and books.
- Recognizes correct and appropriate words for events and objects.

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MATHEMATICS
THREE TO FIVE

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THREE TO FIVE

FOUNDATIONS FOR MATHEMATICS

Preschool children are curious, independent, energetic, and eager to learn new things. This makes them excellent candidates for acquiring math concepts that will form a working foundation for more formal math learning in kindergarten and primary grades. Nowhere is it more true to say children learn by experience and discovery than in their acquiring math concepts. Adults have many opportunities to use naturally occurring events to stimulate curiosity and problem solving in order for children to begin to make the critical connection between living and learning. Adults also influence the child's attitude and self-concept with regard to math processes.

Math concepts that are appropriate for preschoolers to begin working with are: numbers, volume, capacity, length, area, shape, space, time, and size. Much of the work will be discovering relationships through matching and comparing, filling and emptying, and measuring and manipulating. There are many opportunities (teachable moments) for adults to ask questions or make comments (e.g., "I wonder what would happen if..."). The most important learning in early years is the vocabulary that develops as a result of these adult-to-child and child-to-child interactions.



KEY FINDINGS

- ♦ **Mathematics is a developmental process that follows a sequence of awareness, exploration, creating, and gaining meaning.**
[Copley, J.V., 2000]
- ♦ **Children move through this sequence at different rates because of individual differences, exposure to tools, hands-on materials, and experiences.**
[Bredekamp, S. & Copple C., (Eds.), 1992; Kamii, Constance, 2000; Copley, J.V., 2000]
- ♦ **Preschool children can solve simple problems and love to do so. Children learn best when they find answers for themselves and in their own way.**
[Fromboluti, C. & Rinck, N., 1999]
- ♦ **It's not just the activities that children do that help them learn, but the questions the child asks and the things the adult points out that get children thinking mathematically.**
[Fromboluti, C. & Rinck, N., 1999]



MATHEMATICS FOUNDATION 1

F.1 - NUMBER SENSE

Number Relationships

Children learn the meaning of numbers in the every day experiences the adult provides in the home, classroom, and nature. The child needs opportunities to watch, play, and interact with adults and other children to learn number vocabulary and to discover number relationships. Developing number sense means more than merely counting. It involves the ability to think and work with numbers easily, to understand their uses, and describe their relationships.

Young children are learning when they:

- F.1.1 Sing and dance to a number song.
- F.1.2 Count a number of objects up to three.
- F.1.3 Count each object only once.
- F.1.4 Imitate counting behavior using the names of large numbers.
- F.1.5 Identify first and last.
- F.1.6 Use whole numbers up to five to describe objects and experiences.
- F.1.7 Identify when objects are the same number, even if arrangement is changed.
- F.1.8 Rote count to five.
- F.1.9 Draw pictures or symbols to represent a spoken number.
- F.1.10 Match number symbols with amounts 1-3.
- F.1.11 Give “all” objects when asked.
- F.1.12 Identify the concept of “less.”
- F.1.13 Count backward from five.
- F.1.14 Give “some” and give “the rest” when asked.
- F.1.15 Identify the concept of “none.”
- F.1.16 Rote count to ten.
- F.1.17 Match number symbols with amounts 0-5.
- F.1.18 Apply one-to-one correspondence with objects and people.
- F.1.19 Identify the next number in a series of numbers up to ten.
- F.1.20 Count backward from ten.
- F.1.21 Pass out objects or food to people or characters.
- F.1.22 Name groups of objects.
- F.1.23 Use a tally system.

A child can be supported by an adult who:

- Counts real things to help the child use personal experiences with objects to better understand numbers.
- Provides daily opportunities for the child to count and recount objects as opportunities naturally arise, points to the object, and recites each number name while counting.
- Provides objects with naturally occurring numbers and number words such as clocks, timers, calendars, thermometers, computers, calculators, measuring cups.
- Uses number words and numerals, including zero, in meaningful everyday activities.
- Points out that counting lets the child know how many things are in a group.
- Uses a variety of strategies (e.g., questions, comments, counting) to prompt children to think about quantity and number words.
- Talks to the child about a variety of uses of numbers (e.g., keeping score in a game, finding an apartment, street address, or phone number).
- Provides opportunities for the child to guess the amount or size of something. Very young children will not be able to estimate accurately, because they are learning the concepts. They first need to understand concepts like more, less, bigger and smaller, first and last.
- Helps the child understand concepts like more, less, bigger, smaller, first, and last.
- Provides opportunities for the child to count and share things.
- Provides opportunities for 4- and 5-year olds to play board games to learn math concepts (e.g., counting, planning ahead, thinking, finding patterns, and understanding how much).

How it looks in everyday activities:

Using names for numbers and counting

Mrs. Lee leads Anne, Rose, and Julia in playing a rhyming game, *Ants on a Log*, singing “Three little ants come out to play on a sunny day!” The three girls pretend to be ants on a log. They enjoy the whole song, singing two ants and one ant until there are none.

“That was fun!” says Anne. “Let’s do more,” adds Rose. “OK,” agrees Mrs. Lee, “let’s draw some pictures of the ant song.” She brings out paper and crayons for each girl.

“Hmm,” Anne says, “I can draw three ants, one for each of us!” Rose nods and carefully draws three ant shapes on her paper. Julia watches, but she doesn’t start to draw anything yet. Seeing her hesitation, Mrs. Lee asks Julia what her favorite part of the song was. After a few more questions, Julia has some ideas and starts to draw. When her picture is completed, Julia tells Mrs. Lee “I want to do more ant games.” Mrs. Lee smiles because she has already planned to serve *Ants on a Log* for snack. She asks, “Who wants to eat an ant snack?” She brings out the ingredients, then explains and shows how to make the snack. Each girl gets to choose one stalk of celery, two spoons of peanut butter, and five raisins to make the snack. While the girls enjoy their snack, they talk about what makes a healthy snack food.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Takes turns.
- Acts out a story.
- Rhymes.

Cognitive:

- Displays number sense through measuring, counting, and comparing bigger and smaller.

Physical:

- Uses large and small muscles.

Self-help:

- Gains knowledge of snack foods that are healthy, and healthy food helps them grow.

Communication/Literacy:

- Shares communication by sharing with others a representation of what was done.

MATHEMATICS FOUNDATION 2

F2 - COMPUTATION

Counting, Sorting, Classifying, and Comparing Objects

Learning to model, explain, and use addition and subtraction concepts in problem solving situations begins with the opportunity for young children to count, sort, compare objects, and describe their thinking and observations in everyday situations. In building the foundation for computation, children need opportunities to observe adults and peers applying mathematical concepts and using problem-solving techniques. Including these concepts in their play and in adult-supported activities, enhances children's understanding.

Young children are learning when they:

- F.2.1 Identify “first” and “last.”
- F.2.2 Trade several smaller items for a larger item.
- F.2.3 Count on fingers.
- F.2.4 Identify and use the concepts of “one more” and “one less.”
- F.2.5 Communicate that a snack is split in “half.”
- F.2.6 Make a collection of items smaller by taking away items when asked.
- F.2.7 Make a collection of items larger by adding items when asked.
- F.2.8 Describe addition situations for numbers less than three.
- F.2.9 Make guesses related to quantity.
- F.2.10 Describe subtraction situations for numbers less than three.
- F.2.11 Describe addition situations for numbers less than five.
- F.2.12 Describe subtraction situations for numbers less than five.
- F.2.13 Break apart a whole quantity of something into a set.
- F.2.14 Combine a whole quantity of something (e.g., pop beads).
- F.2.15 Represent object/activity by drawing or selecting picture.

A child can be supported by an adult who:

- Provides a variety of objects that work together in a 1:1 relationship (e.g., markers with caps, cars with garages, containers with lids).
- Asks the child to pass out utensils, napkins, and cups for snack/meal time.
- Engages in conversations with the child about quantity and comparisons as the child interacts with materials throughout the day.
- Provides a variety of materials that may be used for adding and subtracting.
- Poses questions which ask the child to make guesses or predictions (e.g., “How many do you think you have?”).
- Provides planned opportunities for the child to predict in naturally occurring activities (e.g., guessing how many days before garden seeds sprout).
- Provides opportunities for child to practice forming numerals with many different mediums (e.g., trace numerals in shaving cream, sand, salt; create numerals with rolled clay, pipe cleaners, craft sticks).
- Provides opportunities for child to write numerals with different materials (e.g., chalk, crayons, pencil).
- Provides opportunities to integrate science and math (e.g., “What kind of sand do you think can make a bigger pile, wet or dry? What did you find out?”).
- Offers praise and encouragement that is focused on the activity in which the child is engaged (e.g., “That’s a nice boat you have drawn. Where is it going?” rather than “You’re so good at drawing”).

How it looks in everyday activities

Counting, sorting, and comparing objects

The children in Mary's home-based early care and education program are learning about sorting and counting. Mary finds many different colored blocks and hides them around the room. She makes sure there are different numbers of each color for this activity.

Mary says, "When you hear the music, search for a block. Everyone should find just one block." Mary holds up one finger to show how many blocks each person should find. Mary watches as each child finds a block and then stops the music, signaling the children to gather in a circle.

"Let's see how many of each color you found." Mary says. "Everyone who found a blue, stand here," she says and continues until all the children are grouped. Billy has trouble finding his group and says, "I need help." "Let me see your block." Sean says. "You have a green one like Dmitri has. See?" Sean points to the right, and Billy goes over to stand by Dmitri. The boys hold their blocks up and compare the colors.

"Which color had the most blocks?" asks Mary. Billy shouts "Green!" happy to know the color he has. "No," Sean says "there is more red." Mary says "Let's line up and see which has more." She helps the children line up side by side and one by one so they can see which color has more blocks. "Red has the most. Blue and yellow are the same. And green has the littlest number." Sean says.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Participates in a group experience.
- Follows directions.

Cognitive:

- Sorts and compares objects (e.g., more than, less than, and same).

Physical:

- Uses gross control in lining up, moving around the room, and stopping.

Self-help:

- Puts toys away when finished.

Communication/Literacy:

- Acts out verbal and nonverbal communication.

MATHEMATICS FOUNDATION 3

F.3 - ALGEBRA AND FUNCTIONS

Finding Patterns and Relationships

Young children build the foundation for finding patterns and their relationships by exploring environments that are rich in shapes, sizes, colors, and textures. They learn to identify and describe patterns using mathematical language when there are opportunities to sort, classify, and label things in their environment. Children need hands-on activities to explore and describe patterns and relationships involving numbers, shapes, data, and graphs in problem-solving situations.

Young children are learning when they:

- F.3.1 Follow along and imitate patterns of sounds and movement.
- F.3.2 Reproduce patterns of sounds and movement.
- F.3.3 Reproduce simple AB patterns of concrete objects.
- F.3.4 Represent objects/activities by drawing or selecting pictures.
- F.3.5 Predict what comes next when shown a simple AB pattern of concrete objects.
- F.3.6 Identify attributes of objects.
- F.3.7 Give reason of placement of objects.
- F.3.8 Draw pictures or symbols to represent a spoken number.
- F.3.9 Sort a group of objects by more than one way.
- F.3.10 Name groups of objects.
- F.3.11 Divide a set of four objects into equal parts.
- F.3.12 Apply one to one correspondence with objects and people.
- F.3.13 Categorize familiar objects by function and class.

A child can be supported by an adult who:

- Supplies a variety of materials for sorting and classifying: shells, keys, cereal, pebbles, bottle caps, nuts and bolts.
- Provides items such as plates or egg cartons for the child to use in grouping objects that are sorted by attributes.
- Encourages the child to create, identify, match, and describe patterns in objects, designs, pictures, movement activities, and recurring events.
- Helps the child create and recognize patterns in his/her environment (e.g., room, clothing).
- Provides opportunities for the child to create his/her own patterns for others to follow or extend using prompts and no-prompts.
- Encourages the child to verbally describe why he/she sorted, classified, and ordered objects in a certain way.
- Uses words that describe attributes and criteria of items in the child's environment.
- Builds on the child's understanding of a series by making changes and additions in materials (e.g., varying the number of objects, types of characteristics, degree of variation).
- Helps the child recognize and describe sequences in nature, daily routines, and in stories.
- Assists the child in identifying shapes in the environment.

How it looks in everyday activities:

Recognizing and reproducing a simple pattern

Emma wakes up to a sunny spring day. She is excited because her mommy Julie promised they would plant flowers today. Emma and Julie go to the garden store to get supplies. Julie says, "I want two colors of flowers. Which colors do you like?" Emma wants all pink, but Julie helps her chose pink and white petunias.

At home, Julie shows Emma how to dig a little hole and put some water in it for the petunia. Emma chooses a pink one and places it carefully in the hole, patting the earth back around it. Julie digs the next hole and asks Emma to bring another petunia for it. Emma picks another pink petunia. "Let's use the white one next." Julie suggests. Emma gets a white one to plant. "Doesn't that look nice?" Julie says as they watch the pattern emerge.

After the white petunia is planted, Emma digs the next hole. "What next?" asks Julie. "This time, pink." Emma says, eager to show she knows the pattern "and then white, and then pink again."

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Interacts cooperatively with adult.
- Experiences self-esteem by doing grown-up things.

Cognitive:

- Reproduces simple pattern.
- Practices doing things in sequential order.

Physical:

- Uses large and small muscles.

Self-help:

- Practices good hygiene such as hand washing to remove dirt, cleans tools.

Communication/Literacy:

- Engages in conversation.

MATHEMATICS FOUNDATION 4

F.4 - GEOMETRY

Recognizing Common Geometric Shapes and Using Directional Words

In building the foundation for recognizing shapes and using directional words, children need opportunities to explore the size, shape, position, and movement of objects within their physical environment. Spatial reasoning (describing the position, direction, and distance of objects in relation to the child) begins as children become aware of their bodies and personal space within their physical environment. Children learn to recognize, draw, and describe shapes by manipulating, playing with, tracing, and making common shapes using real objects in a variety of activities.

Young children are learning when they:

- F.4.1 Give clues for finding hidden objects.
- F.4.2 Discriminate between object that is pulled apart and one that is put together.
- F.4.3 Identify the missing parts (e.g., the door of a car, nose of the dog).
- F.4.4 Copy a vertical and horizontal line.
- F.4.5 Imitate drawing a cross.
- F.4.6 Sort by one attribute (e.g., size, shape, color).
- F.4.7 Sort a group of objects by more than one way.
- F.4.8 Use “in” and “out” to indicate where things are in space.
- F.4.9 Use “on” and “off” to indicate where things are in space.
- F.4.10 Use the words “here” or “there” to indicate where things are in space.
- F.4.11 Follow instructions to place an object “here” or “there.”
- F.4.12 Follow instructions to place an object “beside” or “next to” something.
- F.4.13 Follow instructions to place an object “between” two things.
- F.4.14 Copy circles, squares, triangles, and rectangles.
- F.4.15 Identify circles, squares, triangles, and rectangles.
- F.4.16 Communicate when something does not belong or should not happen.
- F.4.17 Identify ten body parts.
- F.4.18 Identify attributes of objects.
- F.4.19 Put objects into groups by attributes.
- F.4.20 Complete interlocking puzzle of 8-12

A child can be supported by an adult who:

- Encourages the child to explore materials and environment through movement and hands-on experiences.
- Enables the child to have a wide variety of gross motor movement in open spaces both indoors and outdoors (e.g., walking, crawling, skipping, hopping, jumping).
- Provides materials in a variety of shapes and sizes to create and represent shapes (e.g., paper, pipe cleaners, play dough, scissors, tape, wood).
- Provides a variety of geometric materials (e.g., unit blocks, parquet blocks, stencils).
- Uses and encourages the child to use language and physical gestures to demonstrate directional words with people and things in the environment.
- Names and calls attention to shapes naturally apparent in the environment.
- Encourages child to create representations of shapes by constructing models through drawing, block building, or other mediums.
- Provides space and hands-on materials for creating landscapes (e.g., train tracks, houses, roadways).

How it looks in everyday activities:

Recognizing geometric shapes and using directional words

Jamal and several other children at the ABC Preschool were rolling out play dough. Mrs. Jackson, the teacher, brought cookie cutters and encouraged the children to cut out some circles, squares, and triangles. Jamal held up his circle next to Grace's circle and said, "Hey Grace made the same as me!"

Mrs. Jackson said, "Let's put all the shapes that match together." She got three boxes and labeled them with a picture of each shape. She added a glue outline to each shape picture so that Jim, a student with a visual impairment, would be able to match his shapes to the boxes independently. Each child matched his or her shapes to the right picture on the box.

"Now let's do another game with the shapes." Mrs. Jackson said. "First, we take all the shapes out of the box. Now listen and I will give you a direction. Jamal, you find a triangle shape and put it under the box." Jamal easily finds a triangle and is able to follow the direction. Mrs. Jackson gives many other directions using words like in, on, under, beside, and behind. When Grace has a hard time with the words over and under, Mrs. Jackson demonstrates.

Since the children still seemed to be enjoying the shape games, Mrs. Jackson had them look for circles, squares, and triangles all around the room. They had fun finding the different ways the shapes could look and feel, tracing them with their fingers and drawing them on paper. Mrs. Jackson brought out some stencils for Jim to make his drawings; but they were so popular all the children wanted a turn. To finish the shape activity, Mrs. Jackson brought the cleaned cookie cutters back out and the children cut their peanut butter sandwiches into shapes. "I like how this square tastes!" laughed Grace.

Development of a skill in one area is related to and influences other developmental areas:

Social /Emotional:

- Takes turns.
- Practices self-direction in use of materials.
- Interacts with other children.

Cognitive:

- Uses materials for investigation.
- Organizes and classifies objects.
- Learns spatial concepts and shapes.

Physical:

- Moves about freely.
- Rolls out play dough.
- Stops and starts.
- Motor control and balance.

Self-help:

- Picks up and cleans up with others.

Communication/Literacy:

- Uses vocabulary that indicates understanding of spatial concepts and shapes.

MATHEMATICS FOUNDATION 5

F.5 - MEASUREMENT

Time and Measurement Relationships

Children need many opportunities to explore and discover measurement and apply the results to real life situations in order to construct concepts of measurement. As children begin to use actual measurement instruments and explore measurement relationships, they develop a sense of measurement.

Young children are learning when they:

- F.5.1 Follow a daily schedule.
- F.5.2 Follow steps in a simple routine.
- F.5.3 Order three objects by size.
- F.5.4 Use any descriptive word or gesture to express amount or size.
- F.5.5 Use cups and tools in sand and water.
- F.5.6 Use common measuring tools in correct context.
- F.5.7 Communicate the size of things relative to self (e.g., compared to size of finger, arms length).
- F.5.8 Identify when something is hot and cold.
- F.5.9 Communicate feelings of hot and cold.
- F.5.10 Sort objects into long and short.
- F.5.11 Identify similarities and differences in objects.
- F.5.12 Ask why something is the same or different.
- F.5.13 Identify when something is too heavy to lift.
- F.5.14 Relate time to events.
- F.5.15 Associate events with time-related concepts.
- F.5.16 Tell what comes before and after.
- F.5.17 Tell what activity comes first and what follows in sequence.
- F.5.18 Tells three events in chronological order.
- F.5.19 Categorize familiar items by function and class.
- F.5.20 Choose an object based on function.
- F.5.21 Choose between two activities.

A child can be supported by an adult who:

- Provides a variety of measuring tools and time-related instruments (e.g., rulers, measuring tapes, measuring cups and spoons, clocks, scales).
- Includes charts and posters with measurement language.
- Provides opportunities for the child to experiment with measuring (e.g., sand and water table, snack time, art projects).
- Introduces general concepts of time (e.g., yesterday, today, tomorrow; morning-afternoon-evening) before discussing specific concepts like hours and minutes.
- Talks about measurement concepts during every day activities (e.g., “It’s hot in here today.” “Your cup is almost full.” “Will this container be big enough to hold the blocks?”).
- Encourages the child to practice measuring with non-standard or arbitrary units of measure (e.g., hands, paper clips, blocks, feet).
- Talks about general concepts of time using clocks and calendars (e.g., mark off days on monthly calendars until child’s birthday).
- Talks about time and sequence during daily activities (e.g., wake-up, eat breakfast, brush teeth, get dressed).

How it looks in everyday activities:

Making estimates and using measuring tools

It was a warm and sunny day outside. Mrs. Jones recognized a good opportunity to learn about shadows, so she took her class outside. The children stood in different positions, moving their bodies and watching how their shadows changed. “Who knows what makes a shadow?” Mrs. Jones asked. Jimmy answered, “It happens when something gets in the way of a light.”

“Let’s look at the different sizes of shadows.” said Mrs. Jones. She showed the children a yardstick and explained how to use it for measuring. Carolina is learning to use English, so Mrs. Jones used strategies such as gestures and repetition to make sure she understood the lesson. Carolina smiled when it was her turn to measure a shadow. She laid the yardstick on the shadow of her friend Lilly’s leg. As she measured it, Lilly moved and the shadow got smaller. The girls laughed together and then Lilly moved to make the shadow get bigger again.

Jimmy operated his wheelchair to come closer to the girls. He looked at Carolina and reached out his hand saying, “Hey that’s neat! Can I have a turn with the yardstick?” Mrs. Jones watched as Jimmy held the yardstick out to measure Carolina’s shadow. “Now move,” he said “so it changes.” Carolina made her shadow get shorter, then taller, and then wider. “This is so cool!” Jimmy shouted. Carolina smiled and said, “Cool!”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Plays and works cooperatively.

Cognitive:

- Shows an awareness of conventional measurement tools and methods and making estimates.

Physical:

- Engages in large and small motor activities.

Self-help:

- Demonstrates self-direction.

Communication/Literacy:

- Increases vocabulary.
- Exchanges information with others.

MATHEMATICS FOUNDATION 6

F.6 - PROBLEM SOLVING

Ability to Reason, Predict, and Problem Solve Through Exploration

When young children have experiences in collecting objects and information, as well as opportunities to organize, describe, and graphically represent these collections, they succeed in building a foundation for collecting and using data and thinking about issues of relationships in problem-solving situations. To build a foundation for solving problems, young children need opportunities to hear, use, and apply relevant vocabulary while formulating questions and possible solutions with others based on their observations and experiences.

Young children are learning when they:

- F.6.1 Identify attributes of objects.
- F.6.2 Identify the missing object.
- F.6.3 Give clues for finding hidden objects.
- F.6.4 Make simple cause/effect predictions.
- F.6.5 Find an indirect way to obtain an object.
- F.6.6 Discriminate between object that is pulled apart and one that is put together.
- F.6.7 Create a collection equal to objects in a collection already constructed.
- F.6.8 Identify similarities and differences in objects.
- F.6.9 Identify the missing part.
- F.6.10 Make guesses related to quantity.
- F.6.11 Give reason for placement of objects.
- F.6.12 Communicate when something does not belong or should not happen.
- F.6.13 Use a tool in a new way.
- F.6.14 Use a secondary strategy when the first one fails.
- F.6.15 Use trial and error to solve problems.
- F.6.16 Generalize a solution to a new situation.
- F.6.17 Identify parts of an object.
- F.6.18 Imitate the use of an adult tool in play.
- F.6.19 See a simple task through to completion.
- F.6.20 Recognize silly absurdities in song and play.

A child can be supported by an adult who:

- Provides opportunities to create and share groupings from a variety of materials.
- Provides collections which are already displayed.
- Provides opportunities to discuss the attributes of a collection using appropriate language.
- Represents data using symbols, graphs, and charts (e.g., the number of children wearing red).
- Uses graphs and charts to organize and interpret information and to show relationships (e.g., types of shoes that tie, buckle, or use Velcro).
- Encourages child to experiment with many different ways to solve problems.
- Provides computational tools where they would naturally be used (e.g., calculators near writing material and blocks, adding machines in the office).
- Models correct language when talking with child about quantity (e.g., part, pieces, whole, half, quarter).
- Provides a variety of shapes and materials that may be broken into parts and brought back together again (e.g., pizza, crackers, unit blocks, puzzles).
- Helps the child understand that many problems can be solved in more than one way.

How it looks in everyday activities:

Resolving conflict through problem solving

Mr. Steve's class of 3 and 4 years olds were playing in different centers around the room. Mr. Steve circulated through the room observing and scaffolding learning with the children. All of a sudden, Mr. Steve heard Sara's voice from the block corner, "Timmy, stop that!" Mr. Steve moved quickly to the block area and found Sara crying and Timmy trying to run off with his shirt stuffed with blocks. Between sobs Sara cried, "Why did you break my house? It was for my doll!" Timmy frowned and yelled back "You can't have all the blocks! I need some for my fire station. You have to share!"

Mr. Steve said, "Wow this is a big problem. Sara wants blocks for her house. Tommy wants blocks for his fire station. We need to think what we can do to help solve this problem." Although both children have experience thinking about problems like this with Mr. Steve, they still need help to figure out how to share the blocks. "I had the blocks first," Sara said, "so give 'em back!" "No way!" Timmy said, "You always hog all the blocks." Mr. Steve continues to ask questions about what to do, supporting the children to think about alternatives without giving them a solution. Eventually, they decide to divide the blocks so each one has some. They separate the blocks so each has an equal number of the varying sizes and colors and start to build their individual projects.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Solves differences in a peaceful manner.

Cognitive:

- Solve problems in more than one way.

Physical:

- Uses fine motor control to build with blocks.

Self-help:

- Resolves a conflict in a way that is satisfactory to both parties.

Communication/Literacy:

- Communicates through conversation.

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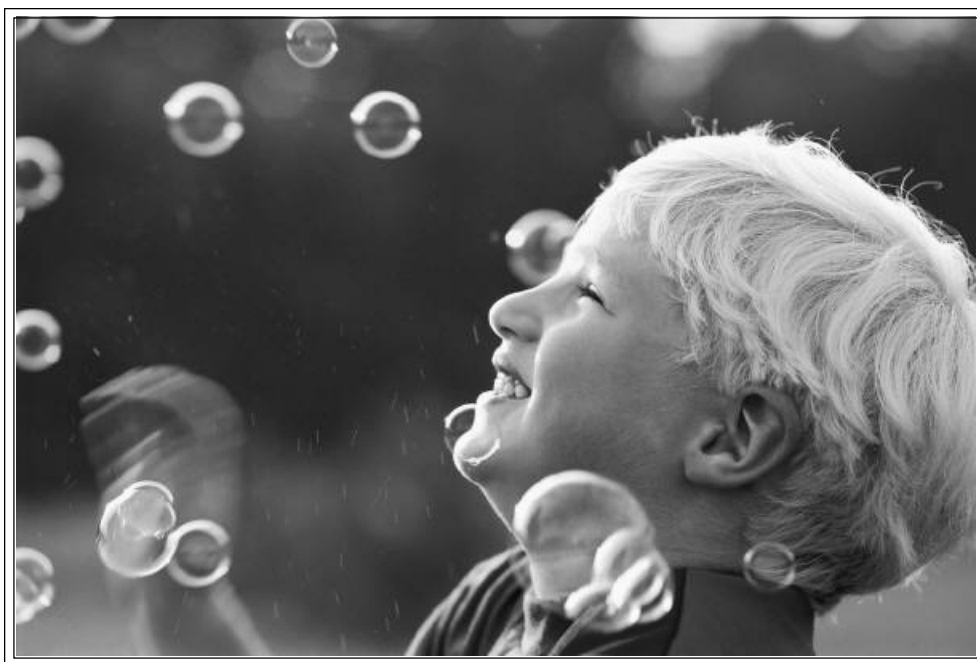
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SCIENCE
THREE TO FIVE

SCIENCE
THREE TO FIVE

SCIENCE
THREE TO FIVE

FOUNDATIONS FOR SCIENCE

Young children are natural scientists. In planning for science experiences, we are not introducing new activities to children; we are merely defining a process they began at birth: making sense out of their world with the intellectual processes currently available to them. During this process of discovery, young children can form misconceptions about their world. Through multi-sensory, firsthand, spontaneous, and repeated experiences that involve both appropriate materials and processes, any misconceptions will be clarified and revised. “These capacities of observation and prediction are the foundation of scientific inquiry.” (*Eager to Learn: Educating Our Preschoolers*. National Research Council. 2001. National Academy Press).

As a result of such science experiences, children:

- ◆ Express and display confidence in themselves and in their environment.
- ◆ Verify information through necessary, firsthand experiences.
- ◆ Develop and apply basic concepts.
- ◆ Demonstrate observation skills.
- ◆ Use tools, equipment, and familiar materials.
- ◆ Display problem solving with adult scaffolding.
- ◆ Explore and discover to increase basic knowledge.
- ◆ Develop sensory, physical, emotional, intellectual, and social capacities.
- ◆ Increase vocabulary and ask and answer questions.

The young child is now on the way to becoming an active, enthusiastic, and self-directed learner.

KEY FINDINGS

- ♦ **Everybody can do science and invent things and ideas.**
[American Association for the Advancement of Science, 1993]
- ♦ **Learning science is something children do, not something that is done to them.**
[National Research Council, 1996]
- ♦ **Children should develop an understanding of what science is, what science is not, what science can and cannot do, and how science contributes to culture.**
[National Research Council, 1996]
- ♦ **Children's learning reflects a recurring cycle that begins in awareness and moves to exploration, to inquiry, and finally to utilization.**
[National Research Council, 2000]
- ♦ **"If children are to understand science, they must be permitted to abstract knowledge on their own, or at least be permitted to verify for themselves much of the information they are given."**
[Schickedanz, Judith A., York, Mary E., and White, Doris, 1977]
- ♦ **Our world is a museum, a field trip, a laboratory, and a natural resource, just waiting to be discovered, explored, and enjoyed.**
[Taylor, Barbara J., 1991]



SCIENCE FOUNDATION 1

F.1 - THE NATURE OF SCIENCE AND TECHNOLOGY

Scientific Inquiry and Process

Young children are natural scientists. When provided with opportunities to observe and investigate, they will ask questions and comment about their observations and discoveries. Parents, teachers, and caregivers who answer their questions and arouse their interest and curiosity about the world around them sow the seeds for these future scientists.

Young children are learning when they:

- F.1.1 Choose an area with science materials as a place to work.
- F.1.2 Interact with and explore a variety of objects, books, and materials.
- F.1.3 Observe and describe properties of objects.
- F.1.4 Make selections from the science objects and materials available.
- F.1.5 Use the five senses (touching, smelling, seeing, hearing, tasting) to investigate the environment and to gather information.
- F.1.6 Use a variety of “scientific tools” (e.g., balance scales, magnifying glasses, measuring cups, food coloring) to investigate the environment and to gather information.
- F.1.7 Use age appropriate scientific equipment (e.g., magnifying glasses, thermometer, scales) when participating in scientific experiences.
- F.1.8 Engage in a scientific experiment with a peer or with small groups of children using sharing/turn taking skills.
- F.1.9 Ask and answer questions about his world.

A child can be supported by an adult who:

- Provides opportunities in and out of the classroom for children to explore objects and materials.
- Encourages and supports opportunities for children to plan and select science-related activities.
- Provides a variety of materials and objects for the child to explore and ask questions about.
- Extends the child’s thinking and learning by posing problems, making suggestions, responding to and encouraging the child’s questions, and adding complexity to tasks.
- Extends the child’s learning by allowing the child to make predictions.
- Extends the child’s learning by providing assistance and information.
- Encourages the child to document discoveries through a variety of ways (e.g., drawings, photos, discussions, graphing).
- Offers the child a variety of materials/objects to touch, smell, hear, see, and taste.
- Considers the child’s developmental level and background knowledge when choosing activities and materials.
- Supports the child’s beginning friendships by providing opportunities for the child to learn and explore with peers and adults.
- Sets up and assists the child in doing simple science experiments (e.g., mixing colors, cooking).
- Uses language associated with science (e.g., hypothesis, prediction, conclusion, experiment, science, investigation).

How it looks in everyday activities:

Water Droplet Trails

Susan, Juan, and Mrs. Hunt are watching the rain hit the windows. "Look how the water drops get longer as they move down the window," Mrs. Hunt says. Susan traces the drop and says, "It looks like a little worm moving around."

Mrs. Hunt says, "I have an idea to have some fun with some water drops." She brings out several Styrofoam plates and some permanent markers. "Draw a small circle, a little smaller than a dime," she says. "Next, make different lines to connect the circles, like a straight line, or wavy line." Juan draws a jagged line and Susan makes a curvy line on her plate.

Mrs. Hunt uses an eyedropper to fill up one circle with water. She carefully tilts her plate so that the water runs along the line from one circle to the other. Both children fill a circle and watch the water move along the lines. Susan uses a small sponge to fill her circle because the eyedropper is hard for her to use. "I want to do it again," Susan says. "Here," Juan says, "just dry the plate with this paper towel and then start over."

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Demonstrates interest and participates in classroom activities.
- Seeks out children and adults.
- Works cooperatively and accepts responsibility.
- Helps others in need and respects the rights of others.
- Shares materials.

Cognitive:

- Explores objects and environments.
- Observes and makes discoveries.
- Follows simple directions.
- Uses creativity and imagination.
- Identifies names of objects.
- Increases vocabulary.
- Makes comparisons.
- Displays awareness of cause-and-effect relationships.
- Identifies relationships of objects in space.
- Shows curiosity and desire to learn.

Physical:

- Coordinates eye and hand movements.
- Uses small muscles to complete tasks.
- Demonstrates visual discrimination skills.

Self-help:

- Uses planning skills.
- Shows responsibility for helping to maintain the environment.
- Demonstrates increasing independence.

Communication/Literacy:

- Uses words to describe the characteristics of objects.
- Participates in group discussions.
- Asks and responds to questions.
- Uses words to explain ideas and feelings.

SCIENCE FOUNDATION 2

F.2 - SCIENTIFIC THINKING

Computation and Estimation

Meaningful science learning experiences help young children investigate those pre-existing ideas, such as shapes and patterns, while building a foundation for additional knowledge. These science learning experiences also provide opportunities for children to classify or sequence objects by an attribute (characteristic) and to develop an understanding of numbers.

Young children are learning when they:

- F.2.1 Participate in activities related to number sequencing and counting.
- F.2.2 Manipulate a variety of objects and tell about what is observed (e.g., more than, less than, equal to/same).
- F.2.3 Classify objects by different attributes (characteristics).
- F.2.4 Apply previously learned information to new situations.
- F.2.5 Show a curiosity and independent interest in number related activities.
- F.2.6 Use familiar materials to measure things (e.g., popsicle sticks, unifix cubes, paper clips, crayons, hand).

A child can be supported by an adult who:

- Discusses with the child the schedule for the day using language such as before/after.
- Organizes the environment to support and encourage counting/sorting.
- Assists the child in counting the number of boys and girls in the classroom or in other areas.
- Utilizes mathematical language whenever possible, specifying the number of objects being needed or discussed.
- Counts with the child while moving to music or while using body rhythms (e.g., clapping and stomping).
- Provides materials that encourage the child to create symmetrical patterns (e.g., wooden blocks, colored shapes, pattern blocks, tangrams).
- Provides familiar materials to measure things (e.g., popsicle sticks, paper clips, crayons, unifix cubes, hands).
- Assists the child in recording observations and results of scientific investigations.

How it looks in everyday activities:

Measuring, Mixing, and Baking

Each day after school, Tom goes with Nikki to her house. Today, Nikki's mother has promised them that they can make cookies to take to school the next day. The children are excited. Nikki's mom has the recipe, the bowls, the measuring cups and spoons, all the necessary ingredients, and the cookie sheets on the kitchen table. Together, they read the recipe and begin measuring and mixing. As they add ingredients, they discuss how much is a half, a teaspoon, a tablespoon, etc. Nikki and Tom each get a turn with the task of measuring, mixing, and adding ingredients. Nikki's mom assists Tom by supporting his arm as he measures and adds. Because he has cerebral palsy, Tom needs support to pour and to mix. Nikki's mom is sensitive and aware of the fact that Tom needs to be as independent as possible. She lends the support when asked or when she observes it to be necessary. While the cookies are baking, Nikki's mom reads a story with the children (*Cookie's Week*, 1997). After the cookies are out of the oven and cooled, the children count the number of cookies. Nikki's mom helps them compare the number of cookies they have to the number in their class by matching a cookie to a paper cup.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Interacts/talks with other children.
- Demonstrates confidence in one's growing ability.
- Demonstrates increasing independence.
- Understands and respects differences.
- Exhibits trust in adults.

Cognitive:

- Classifies objects by similarities and differences.
- Identifies names of objects; increases vocabulary.
- Persists with task.
- Follows simple directions.
- Observes and makes discoveries.
- Recalls a sequence of events.
- Listens to a story and explains what happens.
- Counts in correct sequence and matches one-to-one.
- Makes comparisons.
- Displays awareness of cause-and-effect relationships.

Physical:

- Coordinates eye and hand movements.
- Uses small muscles for self-help skills and to complete tasks.
- Demonstrates visual discrimination.
- Discriminates differences in texture.

Self-help:

- Uses planning skills.
- Shows responsibility for maintaining the environment.
- Demonstrates increasing independence.

Communication/Literacy:

- Participates in group discussions.
- Shares a story.
- Uses words to explain ideas and feelings.
- Asks and responds to questions.

SCIENCE FOUNDATION 2

F.2 - SCIENTIFIC THINKING (cont.)

Shapes and Symbolic Relationships

A fundamental skill for science endeavors is the ability to observe and reproduce patterns and shapes. Children are attracted to patterns and shapes from early months of life. This innate interest can be utilized to build a good foundation of observation, comparison, and discrimination skills that will enable the child to be a better scientist.

Young children are learning when they:

- F.2.7 Talk about the fact that everything has a shape.
- F.2.8 Observe shapes and look for objects that are the same shape.
- F.2.9 Identify, copy, extend, and create patterns with objects and in drawings.
- F.2.10 Participate in activities using materials with a variety of shapes and patterns.

A child can be supported by an adult who:

- Repeats a sound pattern during musical activities.
- Creates simple visual patterns using children (e.g., boy-girl, stand-sit).
- Provides materials such as blocks or art supplies so that the child can create patterns.
- Has the child recreate patterns using lacing beads, colored pasta, peg boards, poker chips, or other manipulatives.
- Asks the child to look for patterns in and out of the classroom or on clothing.
- Asks the child to look for and name shapes within and outside the classroom.
- Provides opportunities for the child to create his/her own patterns for others to follow and/or extend patterns by using leaves, rocks, nuts, etc.

How it looks in everyday activities:

Discovering “tools” of science

Marcus excitedly enters his family child care home on Thursday morning holding up a magnifying glass. “Mr. Gill! Look what I got from my grandpa!” he exclaims. “Neat.” says Mr. Gill. “Do you know this is a tool for science?”

Marcus looks at the magnifying glass more closely. “Can I share it with my friends?” he asks.

Marcus and Mr. Gill decided that discovery time would be the best time to share and show the other children what a magnifying glass is for. Mr. Gill asks Marcus to help him to gather several other science tools. They find plastic tweezers, balance scales, hand lenses, measuring cups, spoons, and plastic containers filled with rocks, blocks, cotton balls, flower seeds, and many other things. They find some paper and pencils for recording interesting findings.

The boys and girls look at the tools and listen to Marcus telling about his magnifying glass. They take turns trying out the different kinds of tools with the materials that Marcus and Mr. Gill found. Marcus says, “This cotton and paper are both white, but they look different with the magnifying glass.” He shows the paper and cotton to his friend Kim. “What can we look at next?” she wonders.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Exhibits confidence in one’s growing ability.
- Demonstrates interest and participates in activities.
- Seeks out children and adults.
- Helps others in need.
- Works cooperatively with others on completing a task.
- Shares materials.
- Respects the rights of others.

Cognitive:

- Demonstrates an interest in exploring.
- Finds one more solution to a problem.
- Uses creativity and imagination.
- Identifies names of objects.
- Makes believe with objects.
- Shows curiosity and a desire to learn.
- Makes comparisons.
- Shows awareness of cause-and-effect relationships.
- Demonstrates an interest in writing for a meaning.
- Increases vocabulary.

Physical:

- Coordinates eye and hand movements.
- Demonstrates visual discrimination skills.
- Uses small muscles to complete tasks.

Self-help:

- Chooses the activity.
- Uses planning skills.
- Shows responsibility for getting out and putting away.

Communication/Literacy:

- Makes increasingly representational drawings.
- Listens to a story and explains what happened.
- Discriminates sounds.
- Uses words to explain ideas and feelings.
- Asks and responds to questions.

SCIENCE FOUNDATION 3

F.3 - ENVIRONMENTS

The Physical Setting

As natural scientists, young children need multi-sensory opportunities to learn about their environments. Having the opportunities and the time for free exploration of a variety of materials and objects as well as teacher guided explorations, young children can acquire scientific knowledge related to physical science.

Young children are learning when they:

- F.3.1 Participate in activities using materials with a variety of properties (e.g., color, shape, size, name, type of material).
- F.3.2 Investigate and talk about the characteristics of matter (e.g., liquids and solids, smooth and rough, bend-not bend).
- F.3.3 Actively explore simple machines (e.g., pulleys, levers, wheels).
- F.3.4 Investigate the physical surroundings by digging in dirt, collecting and classifying rocks, recognizing changes in weather.
- F.3.5 Gain a natural sense of the forces of nature by experiencing wind blowing, temperature changes, changing seasons of the year, or things falling.
- F.3.6 Describe differences and similarities in various physical environments.
- F.3.7 Ask questions and/or make comments about the sun, stars, planets, and clouds.
- F.3.8 Describe how the physical environment affects the living environment and vice versa.

A child can be supported by an adult who:

- Exposes the child to the concept of balance using blocks, teeter-totter, balance scales, etc.
- Makes available for the child a variety of materials and tools to explore (e.g., wood working tools, magnifying glasses, hand lenses, clocks, pulleys, wind-up toys, springs, magnets).
- Provides an area for science exploration with a variety of available materials (e.g., boards and boxes, levers, wheels and axles, pendulums, and pulleys).
- Provides science-related activities and materials in both the inside and the outside classroom environment.
- Involves the child in experiences with changes of matter (e.g., cooking, mixing things together, dissolving things in liquids).
- Provides a variety of objects for the child to sort, classify, and/or match.
- Allows the child opportunities to predict and the time to test the predictions.
- Integrates science into other areas and activities in the classroom (e.g., math, reading, writing, art, music, movement).
- Uses the language and terms associated with physical science (e.g., fulcrum, force, weight, balance, gravity).

How it looks in everyday activities:

Fun at the Pumpkin Patch

During a trip to the pumpkin patch, Sheila and Rico run around looking for the pumpkins they like best. Lifting up her choice, Sheila discovers a bug crawling under the pumpkin. Rico and Sheila immediately start looking for more bugs and other creatures. “Mrs. Cooper! Do you have a shovel? We need to dig,” Rico says. Mrs. Cooper laughs as she assures the children that they will be able to search for creatures when they return to the child care center.

Back at the center, Mrs. Cooper helps Sheila and Rico use a trowel to collect some soil from the garden, which they put in a dishpan. It is hard to dig up the soil and the children take turns. “Use the trowel to push the soil around in the pan,” Mrs. Cooper instructs. “See if you can see any creatures or bugs. They might be big or they might be small.”

After a bit, Mrs. Cooper returns with a sieve, some white paper, and a magnifying glass. Sheila and Rico watch curiously as she sifts the soil through the sieve onto the paper. “What do you see?” she asks. The children look closely at the paper and use the magnifying glass to see several bugs, worms, and other creatures. They draw pictures to show what they found. “This is fun!” Sheila says, “Can we do it again tomorrow?”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Demonstrates interest and participates in available activities.
- Demonstrates trust in adults.
- Shares materials and works cooperatively.

Cognitive:

- Observes and makes discoveries.
- Makes comparisons.
- Shows curiosity and desire to learn.
- Identifies names of objects.
- Counts/records findings.
- Increases vocabulary.

Physical:

- Coordinates eye and hand movements.
- Moves around (e.g., walking, digging).

Self-help:

- Uses planning skills.
- Does more things independently.
- Accepts responsibility for maintaining the environment.

Communication/Literacy:

- Communicates with peers and adults.
- Takes pictures/records findings.

SCIENCE FOUNDATION 3

F.3 - ENVIRONMENTS (cont.)

The Living Environment

It will not surprise most people that children in the pre-school years are eager to learn more about their living environment. Animals and plants are some of the first things very young children recognize and show an interest in.

Young children are learning when they:

- F.3.9 Observe and explore a variety of live plants and animals.
- F.3.10 Take care of familiar plants and animals.
- F.3.11 Identify plants and animals as living things.
- F.3.12 Identify non-living things.
- F.3.13 Sort things by attribute or characteristic.
- F.3.11 Compare characteristics of living things (e.g., Donkeys have shorter legs and longer ears than horses; a tulip looks like just a cup, but a daffodil looks like a cup and saucer).
- F.3.12 Talk about different types of plants and animals that inhabit the earth.
- F.3.13 Participate in activities related to preserving their environment.

A child can be supported by an adult who:

- Provides opportunities for the child to observe and interact with live animals and plants (e.g., field trips such as farm, zoo, veterinarian's office, nursery, science museum).
- Provides (if no allergies) plants and animals for children to observe including non-toxic houseplants.
- Provides art materials and art experiences to reinforce and support concepts.
- Makes available materials necessary to record findings (e.g., paper, markers, clip boards).
- Assists the child in creating schedules for the care of live animals/plants.
- Plans nature walks to observe, to listen, and to collect.
- Guides the child's observations with questions and comments in order to help the child make connections with what is observed.

How it looks in everyday activities:

What will the wind blow?

On a neighborhood walk, Jessi and Margo begin to notice the trees swaying, branches blowing in the wind. “Why?” asks Ms. Kim, “Why is the stop sign not moving like the branches of the trees?” As the children and their teacher continue to walk, they feel the wind move their hair and clothes and push against their bodies. The discussion continues to focus on the things that do and do not move with the wind.

Back inside, Ms. Kim gathers a variety of familiar objects and materials such as a cotton ball, a piece of paper, a rock, a tissue, a block, etc., and piece of chart paper. On the chart paper, Ms. Kim writes, What can I move by blowing through a straw? On the left side of the paper, Ms. Kim writes a list of the materials and objects she has gathered. She adds a “yes” and “no” column. Jessi and Margo look at the items and predict if they can be moved by blowing through a straw or not. Ms. Kim says, “Think about what happens when you blow. What is it that makes the object move? Will all the objects move when you blow?”

The girls test each object and find that many of their predictions were right. Margo says, “Let’s find more things to test!” Jessi agrees and Ms. Kim helps them look around the room and outside for more objects for their project.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Shares materials.
- Works cooperatively.
- Demonstrates trust in adults.
- Demonstrates interest and participates in activities.

Cognitive:

- Asks and responds to questions.
- Observes and makes discoveries.
- Applies information and experience to a new context.
- Recalls a sequence of events.
- Makes comparisons.
- Discriminates differences in texture.
- Shows curiosity and desire to learn.
- Increases vocabulary.

Physical:

- Coordinates eye and hand movements.
- Uses small muscles to complete tasks.
- Uses gross motor skills.

Self-help:

- Uses planning skills.
- Shows responsibility for maintaining environment.

Communication/Literacy:

- Uses words to explain ideas and feelings.
- Draws/writes about findings.
- Listens to a story.
- Makes up stories.
- Talks with others.
- Recalls words in a song or finger play.

SCIENCE FOUNDATION 4

F.4 - COMMUNICATION

Sharing Observations and Discoveries

As young children explore their world through materials and activities, they need opportunities to share their findings with others through discussions, charts, drawings, computer products, and/or self-published books.

Young children are learning when they:

- F.4.1 Use vocabulary that indicates understanding of scientific principles (e.g., sink, float, melt, solid, liquid).
- F.4.2 Identify attributes or characteristics for comparison (e.g., color, size, gender, shape).
- F.4.3 Classify objects by an attribute (characteristic) and share their thinking with another.
- F.4.4 Participate in discussions related to their findings.
- F.4.5 Use charts, drawings, and/or graphs to share their findings with others.
- F.4.6 Use their findings to create self-published books and/or materials.
- F.4.7 Dictate statements/draw pictures to share findings.

A child can be supported by an adult who:

- Compares with the child similarities and differences in two stories or between two children or two objects.
- Guides the child as he verbally tells about observations using words such as melt, float, liquid, solid, etc.
- Assists the child as he describes his discoveries and/or records his observations or findings through drawings, charts, graphs, etc.
- Provides a variety of objects and opportunities for comparing and sequencing.
- Provides materials needed for the sharing of findings (e.g., paper, glue, scissors, markers, camera, blank books).

How it looks in everyday activities:

From Mud to Dwelling

Mr. Tim's class reads the classic story *The Three Little Pigs*. Later, during free time, Ted and Cindy build a house with blocks. Cindy pretends to be the wolf and Ted the pig. "I'll huff your house down," Cindy shouts gleefully. "Oh no you won't wolf," Ted counters, "I made my house with super bricks." The two laugh some more as they play out the familiar story.

After lunch, Mr. Tim says, "Let's go on a little walk and see some different materials that people use to make their houses." Mr. Tim leads the way around the neighborhood, asking questions to help the children think about how houses are made, what makes a house strong, and where building materials come from.

When they get back to the center, Mr. Tim shows the children some bricks, pieces of wood, and even some vinyl siding scraps. The children touch and pick up the different pieces. They talk and think about the different textures and weights. Mr. Tim asks, "How do people get bricks or other building materials to stick together?" Ted says, "You put bricks together with mud. I saw it on TV." Mr. Tim helps Ted remember more details about how the bricks are held together and share these thoughts with the other children. Cindy remembers that she has seen her mom and dad use a hammer to nail pieces of wood to make their deck. "You have to hit the nail real hard," Cindy recalls. "Let's find out more about building by searching on the Internet," Mr. Tim suggests when it is time to go inside. Cindy and Ted run ahead to get started.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Interacts with others.
- Works cooperatively.
- Feels proud of one's accomplishments.
- Demonstrates interest in activity.

Cognitive:

- Increases vocabulary.
- Follows simple directions.
- Makes comparisons.
- Distinguishes differences in textures.
- Observes and makes discoveries.
- Recalls a sequence of events.
- Uses words to describe the characteristics.
- Demonstrates awareness of cause-and-effect relationships.

Physical:

- Uses small and gross (large) motor skills to complete task.
- Uses drawing/writing tools with increasing control.

Self-Help:

- Uses planning skills.
- Works with minimal adult assistance.
- Shows responsibility for maintaining environment.

Communication/Literacy:

- Asks and responds to questions.
- Makes increasingly representational drawings.
- Participates in group discussions.
- Listens and responds to the story.

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SOCIAL STUDIES
THREE TO FIVE

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FOUNDATIONS FOR SOCIAL STUDIES

Social studies is the study of people and cultures. It looks at how people live today and in the past, work, get along with others, solve problems, and affect and are affected by their environment. Early childhood social studies is a combination of curriculum and instruction that takes into account self-development and appropriate practices, citizenship and democratic principles, and key understandings of the social sciences: history, geography, government, and economics.

Young children learn through their senses and experiences. Between the ages of 3 and 5, the foundations of learning history and social studies are built around the child's personal experiences and understanding of the relationship of self to others. Adults working with young children must first begin by identifying the child's current knowledge and understanding and build on this with first hand experiences.

Young children are beginning to understand how people relate to the earth, how people change the environment, how weather changes the character of a place, and how one place relates to another through the movement of people, things, and ideas.

Through discussion and experiences with stories and older people, young children begin to gain an understanding of the past. Young children must become aware of personal time (usually between 4 and 7 years of age) before understanding historical time. Time understandings should be a major consideration in how historical topics are introduced to young children.

A young child's social development is an important part of development. Social competence and the willingness to interact competently with others – adults as well as peers – affect a wide range of factors related to learning the basics of one's culture (Katz & McClellan, 1997). The quality of a young child's social competence can be a predictor of later social and academic competence (Pellegrini & Glickman, 1990).

The following sections will assist adults with ideas to help young children learn about their world and their environment – both physical and social. This section of the foundations is divided into the social sciences: history, geography, government, economics, and people in our society. This information will help children lay the foundation for social studies in the elementary grades.

The information and examples are geared for children from 3 to 5 years of age. Please acknowledge that children grow and develop at widely different paces and some adaptations may be needed.

KEY FINDINGS

- ♦ **The primary purpose of social studies is to help people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world.**
[National Council for the Social Studies (NCSS), 1992]
- ♦ **Adults who engage children in active investigations, build on what children already know, and address misconceptions, help children develop meaningful historical understanding.**
[Barton, 1997; Harris, J.H. & Katz, L. 2001]
- ♦ **The skills children acquire as they investigate topics in social studies teach them how to be researchers: to ask questions, to seek information, and to think about what they discover.**
[Dodge, D.T., Colker, L. J., & Heroman, C. 2000]
- ♦ **Young children learn about social studies firsthand. As members of a family, school, and/or community they have opportunities to live, work, and share with others.** *[Dodge, D.T., Colker, L.J., & Heroman, C. 2000]*
- ♦ **As children study present day and historical topics, they gain understanding of human interdependence and the relationships between people and their environment.** *[Jablon, J.R., Marsden, D.B., Meisels, S.J. & Dichtelmiller, M.L. 1994]*
- ♦ **Children who achieve social competence by the time they are in kindergarten are more likely to succeed academically and socially in later grades.**
[Katz, L. & McClellan, D.E. 1997]



SOCIAL STUDIES FOUNDATION 1

F.1 - HISTORY

Chronological Thinking and Historical Knowledge

Young children are not ready to conceptualize chronological history, as they are just beginning to be aware of time. It is very difficult to understand hours or days. The daily experiences that are recurring, sequential, and part of a regular routine are important for children to begin understanding time. Discussions about daily schedules and what happens first, second, and so on are very important at this stage. Many children show curiosity about things from the past before formal school, and this curiosity can be used to begin the foundation for historical understanding. There is a difference between learning dates and understanding how to order moments in time. Young children should have opportunities to hear and share stories about the past and visuals to help support the development of historical knowledge. These opportunities should include the child's own past as well as the stories and experiences of others. How people dress and what type of tools and technology they use are two clues young children may use to begin to understand history and the past.

Young children are learning when they:

- F.1.1 Sequence recurring events (e.g., "After I eat lunch, I take a rest.").
- F.1.2 Relate new experiences to past experiences.
- F.1.3 Construct a sense of time.
- F.1.4 Use terms relative to time sequence (e.g., beginning/ending, before/after, early/late, night/day, first/next/last, morning/afternoon/evening).
- F.1.5 Put pictures in sequential order.
- F.1.6 Show anticipation for regularly scheduled events.
- F.1.7 Describe daily routine (e.g., home and/or school).
- F.1.8 Retell a story or event in sequential order.
- F.1.9 Distinguish between past, present, and future.
- F.1.10 Verbalize the days of the week and names of the months.
- F.1.11 Gauge time using their own vocabulary (e.g., number of 'sleeps' instead of days).
- F.1.12 Recall information about the immediate past.

A child can be supported by an adult who:

- Talks with the child about what is happening during the day and week.
- Uses the names of the days of the week in context (e.g., "On Monday, we go to the library.").
- Labels events and routines using the words today, tomorrow, next, later, and long ago.
- Provides a routine for the child.
- Asks the child to recall what happened yesterday or last night.
- Uses calendars to talk about what happened in the past and will happen in the future.
- Provides access to clocks, watches, timers, and calendars so the child can model after adults and pretend to measure time.
- Uses the correct terms when talking about time and order (e.g., first/last, before/after).
- Uses the correct terms when talking about clock time (e.g., minutes, seconds, hours).
- Reads stories and discusses what happened in the beginning, middle, and end.
- Answers questions the child may have concerning how people lived in the past.
- Points out differences in dress, customs, tools, and transportation as may be seen in movies, books, or historical sites.
- Provides many examples of and allows the child an opportunity to manipulate the tools people used in the past.
- Encourages family members to talk with the child about family history and culture.
- Cooks recipes reflecting the family's past culture or other cultures.

How it looks in everyday activities:

Sally's Book

Sally's mother Patricia enjoys scrap booking. She has spent many hours selecting photographs and designing pages to mark memorable occasions. One afternoon Patricia is working on a book about a family vacation. Sally watches and starts to ask some questions about what her mother is doing. Patricia says, "I have lots of books that show pictures of fun things our family has done." Sally pages through an older book and wonders, "How come I'm not in any of these pictures?" Patricia explains that this book is from before Sally was born. Sally wonders why Patricia has saved all these old things. Patricia answers, "I like to remember things that happened in the past. These things help me remember."

Sally asks to make her own book, only about her. Patricia agrees that this would be fun. Together they look through a box of memorabilia that Patricia has saved. They find pictures, cards, and artwork Sally made in preschool. "Mom," Sally says excitedly, "I remember this picture I made for you in Sunday school!" Sally likes seeing the old pictures and talking about places she has visited and people she has known.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Identifies oneself as a member of a specific family.
- Speaks with pride about one's heritage and personal history.

Cognitive:

- Talks about past, present, and future.
- Asks and responds to questions.
- Recalls a sequence of events.
- Demonstrates an interest in exploring.
- Arranges objects in a series.

Physical:

- Describes how one grows and develops.
- Uses small motor skills to complete a task.
- Coordinates eye and hand movements.

Communication/Literacy:

- Gathers artifacts to tell a story.
- Communicates with an adult.
- Learns how to construct a book.

SOCIAL STUDIES FOUNDATION 2

F.2 - CIVICS AND GOVERNMENT

Foundations and Functions of Government and Its Citizens

Young children’s learning is dependent on their background experiences and what they see and hear. Young children can begin to understand that they are citizens of their school, community, and country and what it means to be a responsible, active citizen. Children should be exposed to symbols of the state and the nation including the flags.

Participating in a democracy involves making informed choices. Young children who have many opportunities to make choices in their own lives given alternatives are growing in this important process skill.

Understanding the need for and being able to follow rules is an important developmental step for young children. They can be very emphatic about following rules and the reasons why they are important.

Young children are learning when they:

- F.2.1 Listen and talk about stories that illustrate the concept of being responsible.
- F.2.2 Follow simple directions.
- F.2.3 Complete basic responsibilities related to daily needs.
- F.2.4 Respond positively to options rather than commands.
- F.2.5 Talk about the importance and reason for rules.
- F.2.6 Tell the consequences of not following rules.
- F.2.7 Participate in games and follow the rules.
- F.2.8 Remind other children about the rules and things children shouldn’t do to others and why (one should not bite because it hurts).
- F.2.9 Tell the consequences of behaviors and choices.
- F.2.10 Set own consequences for some behaviors.
- F.2.11 Identify and follow different rules in different places (e.g., school rules may be different from home).
- F.2.12 Show self-control by following rules in different places.
- F.2.13 Start sharing some objects with others.
- F.2.14 By age four, compromise, share, and take turns.
- F.2.15 Show greater ability to control intense feelings (e.g., anger, frustration).
- F.2.16 Identify the U.S. and state flags.
- F.2.17 Say the name of the current President.
- F.2.18 Make choices after considering alternatives.

A child can be supported by an adult who:

- Develops positive rules with the child for understanding and ownership.
- States rules in a positive manner to promote positive thinking instead of negative thinking (e.g., instead of “No running,” say “We use walking feet.”).
- Reviews positive rules daily with the child.
- Gives the child options rather than commands.
- Offers easy-to-follow directions.
- Allows time for the child to discuss behavior and consequences.
- Helps the child verbalize thoughts.
- Demonstrates how the child can use words instead of force to obtain something.
- Models sharing.
- Reads and discusses stories, songs, and poems that reinforce cooperation and sharing between peers.
- Provides the child time to interpret and represent experiences through drawing, writing, art, creative movement, pretend play, puppetry, music, stories, and conversation.
- Provides opportunities for the child to make choices.
- Takes photos of the child helping others, caring for her room, or taking care of daily needs and displays them around the room.

How it looks in everyday activities:

Integrating Group and Personal Responsibility

On a beautiful day, Katie and Shondra were playing jump rope. Round and round the rope went as the girls chanted old jumping rhymes. Katie and Shondra turned the rope and three other girls stood in line for their turns. Suddenly, Katie dropped the rope and cut in front of the line. Shondra screamed, "Katie! You said you were going to turn the rope!" "No!" Katie countered. She folded her arms and refused to get out of the line. The other girls joined in yelling at Katie, who started to cry.

Mrs. Lewis heard the commotion and saw Katie crying. Katie was so upset all she could say was that Shondra would not let her jump. Mrs. Lewis knew there would probably be more to the story, so she called Shondra over and asked her to help sort out the problem. Mrs. Lewis helped the girls tell what happened. She then talked about rules and especially the rule about sharing. Katie was able to explain, "I got tired of turning the rope and I wanted a turn to jump." Mrs. Lewis asked Katie how she could have managed this problem in a better way. Katie thought a while and said, "I could ask someone to turn the rope so I could jump." With Mrs. Lewis' support Katie apologized and the girls went back to their game.

Development of a skill in one area is related to and influences other developmental areas:

Cognitive:

- Reflect and find more than one solution to a problem.
- Apply information and experience to a new context.

Social/Emotional:

- Respect the rights and feelings of others.
- Resolve conflicts constructively.

Physical:

- Engages in physical activity.
- Uses large motor skills.

Self-help:

- Problem solve actions and the situation.

Communication/Literacy:

- Uses language for a purpose.
- Recognizes print has meaning and understanding.
- New words become familiar and are understood in context.

SOCIAL STUDIES FOUNDATION 3

F.3 - GEOGRAPHY

Location (Spatial Awareness)

Young children are geographers. They dig in the sand, pour water, watch rain fall, to try to find out about the nature of the world and their place in it. Location tells us exactly where objects are in our world. Young children learn that they relate to other people and physical things. The beginning of an understanding of location is an awareness of their own body and how much space it takes up. By age two, many children are able to distinguish between near and far and features of their environment. The more opportunities children have to run and move about, the greater their ability to become aware of position and location.

Young children are learning when they:

- F.3.1 Name body parts and point to the location of each.
- F.3.2 Ask questions about everything the child sees and finds.
- F.3.3 Move in directions on command (e.g., forward, backward, sideways).
- F.3.4 Identify and locate familiar places (e.g., home, store, grandparent's house).
- F.3.5 Recognize that streets have signs and houses have numbers to help identify locations.
- F.3.6 Point out and name various rooms in the house from the outside.
- F.3.7 Pretend blocks represent buildings and make signs for the roads and buildings.
- F.3.8 Use a simple map (e.g., diagram of the house, street on which the child lives).
- F.3.9 Make roads for toy trucks and cars.
- F.3.10 Recognize where the child is while traveling in the car.

A child can be supported by an adult who:

- Allows a lot of opportunities for the child to run about and explore the environment.
- Allows the child to climb, jump, run, roll, to physically experience space.
- Plays simple games such as "Mother May I" and "Simon Says," asking the child to move in various directions: forward, backward, sideways, up and down, and right and left.
- Uses positional words like above and below in a natural way when giving directions to the child.
- Uses words that describe features such as color, size, and shape.
- Points out where objects are in pictures when reading books (e.g., "The doll is on the bed.").
- Uses left and right in connection with real situations. (To make it easier, place a string or bracelet on one of the child's hands.)
- Uses directional terms (e.g., "We will turn left at the next street", "The kitchen is sunny in the afternoon because the window faces west").
- Increases the child's vocabulary by using pictures from books and magazines that associate with different places on the earth.
- Takes the child for walks around the neighborhood and points out signs and landmarks that indicate locations.
- Reads and uses maps and globes.
- Before traveling, shares the trip on the map with the child by pointing out the route and places where they might stop.
- Points out signs that indicate location (e.g., entrance and exit signs, stairs, escalators, elevators).
- Supplies materials such as floor maps, road maps, strips and circles of paper with blocks.

How it looks in everyday activities:

Mapping the Playground

For his birthday, Ted received a firefighter's hat. He brought it to preschool to show his friends, Dayshawn and Chuckie. "Cool!" Chuckie said when he saw the hat. "Hey let's be firefighter guys," Dayshawn suggested. The boys looked through the creative play materials for more props, finding some tubing for a hose and some more hats. A stuffed Dalmatian became their fire dog. Outside at the play area, Ted pointed to the climbing gym and said, "This can be the fire station." "OK, and the big tree is on fire and we have to put the fire out," Chuckie added.

Dayshawn got to work laying out the road from the fire station to the burning tree. The other boys joined in to make their road authentic, adding stops and turns with markers they find, such as a Frisbee. Soon the boys are driving to the fire, sounding their horn and ready to work.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Work cooperatively to find a solution.

Cognitive:

- Apply information and concepts in a new context.
- Pretend.

Physical:

- Gross motor activity with walking and running.

Communication/Literacy:

- Discuss how to design the play area.

SOCIAL STUDIES FOUNDATION 3

F.3 - GEOGRAPHY (cont.)

Places and Regions

Young learners draw upon immediate personal experiences as a basis for exploring geographic concepts and skills. Every place has its own characteristics and no two are exactly alike. Helping young children learn about the weather, plants, roads, and buildings that make up their neighborhood and city, is the beginning of an awareness of how places differ.

Young children are learning when they:

- F.3.11 Use words hard/soft, rough/smooth, and water/land when describing surfaces.
- F.3.12 Identify various natural features.
- F.3.13 State the name of his city or town.
- F.3.14 Give information about where she lives (e.g., street, telephone number, house description).
- F.3.15 Identify common community symbols (e.g., signs, highway and street markers, lights).
- F.3.16 Describe features of familiar places (e.g., buildings, stores).
- F.3.17 Create representations of the surrounding neighborhood and community (e.g., blocks, drawings).
- F.3.18 Talk about how to get from one common place to another.
- F.3.19 Discuss different types and modes of transportation to get from one location to another and why certain vehicles are more suitable.
- F.3.20 Match objects to the location they belong (e.g., bed in the bedroom, tree in the forest).

A child can be supported by an adult who:

- Takes the child on walks and talks about surfaces children walk upon and asks if they feel hard or soft.
- Provides exposure to some of the basic natural features of the earth in the child's environment (e.g., river, pond, forest).
- Describes characteristics of earth's features using a variety of vocabulary words.
- Lets the child have many opportunities to explore and experience the natural world.
- Provides the child with many materials and opportunities to draw and 'write' about local trips and experiences.
- Talks about the stores and buildings visited and what is in them.
- Helps the child make a simple map of the neighborhood, house, or school.

How it looks in everyday activities:

Exploring the Surroundings

Ms. Elisabeth takes a group of children on a field trip to a local park. The children climb off the bus and gather in a grassy area to talk. Ms. Elisabeth encourages the children to think, make comments, and ask questions about what they think, feel, see, hear, and wonder. Jamie asks, "Why are trees tall?" Karen wonders, "Where do the birds live?" Keisha queries, "How come there are wood chips on the playground?"

Ms. Elisabeth gives everyone a clipboard with paper and pencils. She suggests that the children explore different areas of the park, then report back to the group what they discovered. The children run to different parts of the park, such as the playground, pond, soccer field, and grove of trees. Keisha draws a picture of the playground and shows it to her friend Johnny. Jamie takes a crayon and makes a rubbing of a tree. When Karen sees this, she makes a rubbing of the sidewalk.

On the way back to school, the boys and girls talk about what they have seen and done. Once at school, Ms. Elisabeth gives everyone a chance to tell what they saw and to show the pictures they made. She has a map of the park and marks the places the class visited on the map. As the children talk, Ms. Elisabeth writes down a record of what was found and questions that come up. The class has so much interest in the park activity that they plan to go back the next week.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Exhibit confidence in one's growing abilities.
- Does more things independently.
- Demonstrate interest and participate in classroom activities.
- Work cooperatively with others in completing a task.

Cognitive:

- Demonstrate an interest in exploring.
- Ask and respond to questions.
- Show curiosity and a desire to learn.
- Observe and make discoveries.
- Classify objects by similarities and differences.
- Identify names of objects and events.
- Make comparisons (e.g., more/less, larger/smaller, taller/shorter).
- Identify relationships of objects in space (e.g., below, inside, under).

Physical:

- Use writing and drawing tools with increasing control and intention.
- Discriminates sounds.
- Demonstrate visual discrimination skills.
- Discriminate differences in texture.

Language/Literacy:

- Use words to describe the characteristics of objects (e.g., smooth, green, small).
- Use words to explain ideas and feelings.
- Talk with other children during daily activities.
- Participate in group discussions.
- Make increasingly representational drawings.

SOCIAL STUDIES FOUNDATION 3

F.3 - GEOGRAPHY (cont.)

Physical Systems

Geography examines where people live, why they live there, and how they use the environment and resources. All people change something about the way they live in order to adapt to their environment. Young children become aware of how people and the earth interact. They begin to understand how the weather and climate affect their lives.

Young children are learning when they:

- F.3.21 Determine what type of clothing to wear based on the weather.
- F.3.22 Identify seasons by temperature or other characteristics (e.g., snow, leaves changing).
- F.3.23 Discuss negative and positive aspects of areas and why people might want to be there.
- F.3.24 Listen and respond to stories about other areas (e.g., deserts, mountains).
- F.3.25 Draw pictures representing the seasonal changes.
- F.3.26 Recognize people live in different types of homes (e.g., apartments, houses).
- F.3.27 Identify and describe people who live in different places for different reasons (e.g., farms, cities, small towns).

A child can be supported by an adult who:

- Talks about clothing choices with the child based on the weather.
- Takes the child for a walk in different types of weather (e.g., windy, cold, hot, rainy, snowy) and discusses the experience and how it felt to be outside.
- Discusses how things look in different types of weather (e.g., when the sun is shining, when it is foggy).
- Helps the child explore the seasonal changes and how that impacts the child's life (e.g., clothing, food, experiences).
- Looks at the thermometer with the child and talks about the temperature.
- Watches the weather forecast on TV or in the paper with the child.
- Discusses the weather in other locations with the child (e.g., "Remember how warm it was in Florida over Christmas vacation?").
- Talks about the different cloud formations and helps the child predict what clouds tell us about the weather.
- Takes the child to a construction site and discusses what is observed.
- Takes the child to visit a farm and talks about how farmers grow crops and raise livestock.

How it looks in everyday activities:

Seasons

Mr. Mark's classroom has a large maple tree outside of it. It is so big that all the children are able to sit under it on nice days. The boys and girls love the tree and like to see it change over the course of the school year.

The school year starts near the end of summer. Katina asks Mr. Mark if they can draw a big poster of the tree. Mr. Mark says yes and provides a big poster board and some markers. The children work together to draw the large maple, with big green leaves.

One day in October, Katina notices that the tree is looking different. "Hey Mr. Mark, our tree has some yellow leaves. Is it OK?" she wonders. Mr. Mark calls the other children over to the window and they all look at the tree. "See how the leaves are changing color?" he asks. He continues, "In the fall, leaves on trees like this change color and then they fall off. Soon all the leaves will be gone for the winter." The boys and girls look at some books that explain about the changes trees go through each year. Katina asks, "Why does this tree lose its leaves, but the pine tree at home doesn't?" Mr. Mark helps the boys and girls find answers on the Internet.

The children decide to make a new poster that shows the tree with fall colors. In the winter, they make a picture of the tree with no leaves. As the school year ends in spring, they add a final picture of the tree with new leaves. Together the four posters show what the children learned about their favorite tree.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Demonstrates interest and participates in classroom activities.
- Works cooperatively with others on completing a task.

Cognitive:

- Identifies the different seasons and various seasonal changes that occur.
- Shows curiosity and a desire to learn.
- Makes and tests predictions.
- Observes and makes discoveries.
- Recalls a sequence of events.
- Shows an awareness of time concepts.

Physical:

- Increases visual discrimination skills.

Self-help:

- Recognizes books as a resource for extending or verifying information.

Communication/Literacy:

- Uses words to describe the characteristics of objects.
- Participates in group discussion.
- Labels pictures.
- Observes oral language set down in written language.

SOCIAL STUDIES FOUNDATION 3

F.3 - GEOGRAPHY (cont.)

Human Systems

Young children begin to first understand the system of the family. Through dramatic play and discussions, children actively explore the roles of family members. They may begin noticing similarities and differences with their family and friends' families.

Young children are learning when they:

- F.3.28 Pretend to take care of a doll by feeding and other activities.
- F.3.29 Play the role of different family members through dramatic play.
- F.3.30 Discuss members of the family and their roles.
- F.3.31 Draw pictures of their family.
- F.3.32 Ask questions about families.
- F.3.33 Talk about how he is the same and/or different from other children.

A child can be supported by an adult who:

- Provides many opportunities for the child to explore family relationships through dramatic play and conversation.
- Helps the child identify and name family members and their relationships and roles.
- Talks about the child's unique qualities and those qualities that make him similar to other children.
- Assists the child in making a family book with pictures and drawings of members.

How it looks in everyday activities:

Student of the Week

In Mrs. Samuelson's class, each student has a chance to be student of the week. The children bring in a poster titled, "All About Me." This week is Jocelyn's turn to be student of the week, and she is very excited.

Mrs. Samuelson has sent home a list of the kinds of things that would be appropriate for the Student of the Week poster. Jocelyn and her mother Angie read the list together. Angie says, "We can put pictures of your favorite foods, toys, places, and people on the poster." They work together to make a list of Jocelyn's favorite things. Angie brings out a box of pictures and they look through them for photos that could go on the poster. Jocelyn finds a photo of their whole family that she wants to put on the poster. "Mom, I need a picture of me with the kitty," she says. When they do not find a picture, Angie suggests that Jocelyn draw one. For Jocelyn's favorite television show, they find a picture of the characters in the paper.

Soon the poster is ready, and Angie rolls it up to take to school. Jocelyn is proud of her poster and can't wait to show it to Mrs. Samuelson and her friends. Mrs. Samuelson lets Jocelyn tell the class about her poster. She shows the different pictures and drawings and tells about her favorite food (tacos), favorite activities (gymnastics), and favorite people, including Grandma Sally and best friend Cindy. Cindy tells Jocelyn, "Your poster is good. I can't wait for my turn next week!"

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Works with others to complete a task.
- Speaks with pride about one's heritage and family.

Cognitive:

- Recalls words from mobile.
- Identifies the roles people play in a family situation.

Physical:

- Uses small motor eye-hand in construction and writing.

Communication/Literacy:

- Recognizes sight words.
- Demonstrates an interest in writing for a purpose.
- Imitates recognizable letters.
- Recognizes his name in print.

SOCIAL STUDIES FOUNDATION 3

F.3 - GEOGRAPHY (cont.)

Environment and Society

All people change something about the way they live in order to adapt to their environment. By 4 and 5 years of age, children begin to learn what they can do to adjust and how people change earth to their own benefit. Young children express interest in things distant and unfamiliar and have concern for the use and abuse of the physical environment.

Young children are learning when they:

- F.3.34 List things that do and do not belong in the environment (e.g., litter, smoke)
- F.3.35 Discuss the need for a clean environment.
- F.3.36 Help clean up after doing an activity.
- F.3.37 Help with home and class routines that keep the house/classroom clean and safe.
- F.3.38 Help parents/adults with recycling empty containers at home/school.
- F.3.39 Design posters for recycling and post in the home/school.

A child can be supported by an adult who:

- Talks with the child about the environment and what people can do to protect it.
- Shows the child examples of clean and safe environments and areas that are not so clean or safe.
- Gives the child responsibility for keeping a room or space clean or tidy.
- Explains how recycling empty containers and papers helps our environment.
- Gives the child help in sorting recycle items from home/school.
- Guides the child in giving out information to others about recycling and how it helps our environment.
- Describes how smoking is hazardous to the health of children and adults.

How it looks in everyday activities:

Recycling

Mario and Jimmy are playing at Mario's house one afternoon after school. They are running outside and having a great time. Hot and sweaty, the boys come inside and ask Mario's mother Julia for a drink. She gives them each juice in a plastic bottle and a small box of cereal. The boys laugh and talk as they eat their snack. As they finish and get ready to go back outside, the boys toss the empty containers in the trash.

When Julia comes back into the kitchen a short time later, she notices the containers in the trash can. Julia frowns as she calls the boys back in. "Mario, I appreciate that you cleaned up after yourself. But remember what we do with this kind of trash?" she asks. "Oops!" Mario exclaims. "We recycle plastic and cardboard. I forgot."

Jimmy's family does not recycle and he asks, "What are you talking about?" Mario explains that it is important to keep the earth clean and looking nice. Julia adds that trash can pile up in the environment, and some things can contaminate the earth. The boys put their trash in the recycling container and Julia says, "Now this plastic and cardboard can be used again instead of just wasted."

When Jimmy gets home, he tells his mom about what he learned at Mario's house about recycling. Jimmy's mom says it sounds like a lot of work. Jimmy says, "It was easy Mom. We just put the plastic and paper in a different container. Mario's mom says the trash guys will pick it up." Jimmy's mom agrees to check into it and later that week a recycling container shows up at their house. Jimmy feels proud that his family is helping the environment too.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Works with peers.
- Demonstrates interest and participates in group activity.
- Respects the rights of others.

Cognitive:

- Learns and uses new vocabulary words.
- Applies new information and experiences to a new context.
- Shows curiosity and a desire to learn.

Physical:

- Expend energy.
- Throws an object in the intended direction.

Self-help:

- Learns life long skills.

Communication/Literacy:

- Follows simple directions.
- Shows speaking and listening skills with an adult.

SOCIAL STUDIES FOUNDATION 4

F.4 - ECONOMICS

Economics

The concepts from economics that are relevant to young children revolve around how families and communities work together to meet their basic needs and wants. Children have a growing awareness of the role of money in purchasing and the connection between work and money. Adults have a significant role in drawing a child's attention to these processes and clarifying any misconceptions. While the interest and ability to grasp economic concepts varies widely from child to child, some of the following ideas can be introduced in the preschool years.

Scarcity- ***The condition of not being able to have all the goods and services that we want.***

Choice- ***What someone must make when faced with two or more alternative uses for a resource.***

Goods- ***Objects that can be held or touched that can satisfy people's wants.***

Services- ***Activities that can satisfy people's wants.***

Young children are learning when they:

- F.4.1 Play store or restaurant with play or real money, receipts, credit cards, telephones.
- F.4.2 Role play different types of occupations.
- F.4.3 Talk about what he wants to be when he grows up.
- F.4.5 Recognize that things have to be paid for with money and that sometimes you can't buy what you want because you don't have enough money.
- F.4.6 Are aware that adults work in order to earn enough money to buy the food, clothing, and housing that a family needs.
- F.4.7 Save money for a future purpose.

A child can be supported by an adult who:

- Provides materials (e.g., cash registers, wallets, purses, checkbooks, credit cards, receipts) and clothing for dramatic play.
- Uses the names of coins and currency, their real and relative worth, and provides an opportunity for the child to handle and become familiar with coins and currency. Some children will become aware that if you come from or travel in another country, there will be other denominations of money.
- Reads many books about different types of occupations.
- Provides an opportunity for the child to visit many different types of employment arenas. (e.g., police and fire stations, stores, restaurants, banks, businesses, construction sites)
- Takes the child to visit a factory and business where his favorite food, toy, and clothes are made and sold.
- Allows the child to 'pay' for a purchase.
- Engages with the child as he uses currency and coins in role playing.
- Introduces the purpose of banks (a safe place to keep our money until we need it), checks (a letter to the bank that tells them to give the grocery store \$\$ from our money), bank machines (way for us to get some of our money out of the bank conveniently).
- Creates opportunity for the child to choose and discusses consequences of choices.

How it looks in everyday activities:

Money Saved

“Grandma Betty,” Marie says, “I want to buy Christmas presents for Mommy, Daddy, and Eddie this year, but I don’t have any money. Can you give me some?” “Well, I won’t give you money, but I have some jobs that you could do to earn the money,” she says. Marie thinks this is a good plan and asks what kind of jobs her grandmother has for her. It turns out that there are many chores that Marie can do, such as helping with the pets, cleaning windows, and dusting furniture.

Every time Marie completes a task, she earns some coins. Grandma Betty gives Marie a small empty coffee can to keep her earnings. They make a small slot in the plastic lid to push the coins through. Marie likes to hear the sound the money makes when it clinks to the bottom of the can.

Marie works for several months and does not spend any of her money. As the holidays approach, Grandma Betty says, “We need to count your money so you can see how much you will have to spend on each gift.” Together they count the coins and make a list of the gifts to purchase. Grandma Betty helps Marie to choose gifts that fit her budget. On Christmas morning, Marie’s mother, father, and brother are surprised to have gifts from her. Marie proudly says, “I worked and saved my money like Grandma Betty showed me.” Grandma Betty smiles and pats Marie on the back.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Develops working relationship with an adult.
- Obtains satisfaction from doing something that helps others and/or improves the environment.

Cognitive:

- Makes the connection between work and money.
- Develops a relationship between the price of goods and the amount of money available.
- Makes choices.
- Uses planning skills.
- Persists in tasks.

Physical:

- Expends energy.
- Uses small and large muscles to complete tasks.

Self-help:

- Learns practical skills for future helping tasks.

Communication/Literacy:

- Uses new vocabulary words in appropriate context.
- Identifies coins by name and relative worth.

SOCIAL STUDIES FOUNDATION 5

F.5 - INDIVIDUALS, SOCIETY, and CULTURE

Cultural Diversity

Three and four year olds are still quite egocentric and relate to their own experiences. They begin to notice similarities and differences between themselves and others.

Young children are learning when they:

- F.5.1 Identify differences between people of different cultures, backgrounds, and abilities.
- F.5.2 Attend to and comment on gender differences.
- F.5.3 Ask questions about physical differences.
- F.5.4 Notice people's skin and explore the differences.
- F.5.5 Notice that some people speak differently than others.
- F.5.6 Observe that different families live in different types of housing.
- F.5.7 Discuss how grandparents and older people look and act different from children.
- F.5.8 Express enjoyment and pleasure when hearing poems, stories, and songs about a variety of people and cultures.
- F.5.9 Use interpersonal skills of sharing and taking turns in interactions with others.

A child can be supported by an adult who:

- Gives the child opportunities to be with many other children to build interpersonal skills (e.g., sharing, taking turns, treating others equally).
- Models caring and kindness for all people.
- Models treating others with respect and fairness.
- Shares stories, songs, and poems about different cultures.
- Discusses with the child physical characteristics and how they can be similar and different (e.g., many people have hair, but different color, length, texture).
- Provides opportunities for discussing the child's physical changes (e.g., creates a height graph and compares sizes).
- Offers play experiences for the child to move and talk with others to establish friendships.
- Provides the child with accurate and compassionate answers to help the child develop a sense of respect for the physical differences of others.
- Provides opportunities for the child to engage in gender non-stereotypic activities.
- Provides art materials, books, photos, and dramatic-play props that celebrate the beauty of diverse cultures.
- Appreciates the values, beliefs, and background experiences the child and the child's family bring.
- Talks about how family members love and support each other.
- Broadens the child's knowledge about children and families in other places and cultures through books, stories, pictures, and videos.

How it looks in everyday activities:

Snacks and Culture

Eun-sook, her mother, and her grandmother are walking to the corner grocery store to get some things for dinner. Eun-sook sees some fruit snacks and asks if they can get some for her lunchbox. Her grandmother wrinkles her nose and asks why she would want to eat something like that. Eun-sook says, “Stephanie has it in her lunch and it looks good. I want to try it.”

Eun-sook’s mother knows that it is good for her to try different foods. She is happy that her daughter is not a picky eater. Eun-sook’s mother agrees to let her try the American snack food in her lunch. Grandmother frowns but says nothing. She is worried that the snack food is unhealthy.

Later at home, Grandmother makes a traditional snack from the family’s home country. She brings it to Eun-sook to try. Eun-sook says, “This is yummy!” She asks if she can have another piece.

In the morning, Eun-sook gets her lunch box from her mother. She looks inside and sees that she has a fruit snack. “Grandmother, may I have some of the snack that you made, too? I want to let Stephanie try it.” Grandmother smiles and feels pleased that she has shared something from their home country with others. That afternoon, Grandmother decides to try the fruit snack herself. “Not too bad,” she thinks, “but my snack is better!”

Development of a skill in one area is related to and influences other developmental areas:

Social-Emotional:

- Tells the importance of sharing and caring for others in a family or community.

Cognitive:

- Recalls previous experiences to relate them to a current context.

Physical:

- Uses gross motor skills when walking.

Self-help:

- Chooses own foods for meals.

Communication/Literacy:

- Uses language skills to participate in discussion.
- Uses new vocabulary words in context.

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PHYSICAL EDUCATION and HEALTH
THREE TO FIVE

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FOUNDATIONS FOR PHYSICAL EDUCATION AND HEALTH

Early childhood is the time for a child to begin the development of an active, healthy lifestyle. This development of skills, knowledge, and attitudes that leads to such a lifestyle must be taught and should begin early in order to ensure a lifetime of good health.

As never before, attention is being given to the research based knowledge that brain and body development are critically linked in the preschool years. It is through physical activity and movement of one's own body that the human brain internalizes the conceptual foundations of laterality (left and right), directionality (up, down, in, out) and position in space (over, under, behind). All these concepts are critical to mathematical thinking related to patterns and relationships, as well as to the foundations of reading and writing. They are necessary in order for the child to "see" how letters are formed and put together in patterns to create words and to translate this understanding into physical movements to recreate these symbols on paper in writing form. Also as young children move their bodies, they learn many concepts through their senses (sensory motor integration). Children need to be provided with many experiences that integrate their body movements with their senses which include: tactile/touch; smell; hearing; taste; sight; kinesthesia (movement); and the vestibular sense (found in the inner ear that helps maintain balance and judge a person's position in space). Young children need those experiences that stimulate the inner ear's vestibular area (e.g., rocking, swinging, rolling, turning upside down, spinning).

The purpose of this section of the document is to focus on developmentally appropriate practices in movement programs as well as health issues for 3 to 5 year old children. Research indicates that connections that are stimulated and used tend to become permanent fixtures; while those that are not tend to be eliminated. It is therefore critically important for adults who interact with these young children to provide the kinds of activities illustrated in this section in order to help promote each child's brain development.



KEY FINDINGS

- ♦ **Children should engage in daily movement opportunities designed for their developmental levels in order to enhance the concepts of body awareness, space awareness, effort, and relationships and to develop competence in a variety of manipulative, locomotor, and non-manipulative skills.** [National Association for Sport and Physical Education, 2000]
- ♦ **Young children learn and develop in an integrated fashion; thus, learning experiences in movement should encompass and interface with other areas of development.** [National Association for Sport and Physical Education, 2000]
- ♦ **Adults help children understand the satisfaction and joy that results from regular participation in physical activity.** [National Association for Sport and Physical Education, 2000]
- ♦ **Adults use observational assessment of each child's progress to plan and adapt curriculum to meet individual developmental and learning needs.** [Bredekamp, S. & Copple, C., (Eds.), 1997]
- ♦ **Adults provide a variety of novel learning experiences that emphasize the same motor skill, across different environmental contexts, allowing for the gradual development of desired movement patterns and the development of confidence.** [National Association of Sport and Physical Education, 2000]
- ♦ **Adults work in partnership with parents, communicating regularly to build mutual understanding and to ensure that children's learning and developmental needs are met.** [Bredekamp, S. & Copple, C., (Eds.), 1997]

The foundation of physical education should be an integral part of any program for 3 to 5 year old children. For these young learners, physical education focuses on all activities and experiences that support and encourage gross/fine motor development as well as sensory integration.

PHYSICAL EDUCATION AND HEALTH FOUNDATION 1

F.1 - GROSS/FINE MOTOR AND SENSORY DEVELOPMENT

Locomotor and Non-locomotor Skills

Young children begin to develop fundamental movements and basic body management competence. They observe, practice, demonstrate, and compare fundamental movements while learning to control their bodies in relation to other individuals and independent objects.

Young children are learning when they:

- F.1.1 Perform locomotor and non-locomotor skills at a basic level (e.g., marching, walking, running, hopping, kicking, crawling, jumping forward with feet together, sliding, stretching, climbing, and walking in a line one behind the other).
- F.1.2 Perform stability skills alone and/or with a partner. (e.g., transferring weight so as to rock, roll, stand on one foot for six seconds and walk up and down steps with alternating feet, tumbling skill of somersaults and log rolls, and walking on a balance beam forward and backward).
- F.1.3 Manipulate objects by throwing, catching large balls with two hands, striking, swinging, and pulling at a basic level. (e.g., throws an object at a target with an overhand motion and trunk rotation, throws something upward and catches it, and jumps over a stationary object).
- F.1.4 Perform basic rhythmical skills alone and/or with a partner. (e.g., the child marches and dances to music or rhythmical sounds in free form or with simple adult directions).

A child can be supported by an adult who:

- Encourages the child to walk, run, hop, and jump on the lines of a sidewalk or drawn lines on a hard surface.
- Makes up motions of clapping, stomping, marching to accompany nursery rhymes or other rhyming verses/chants and music.
- Provides materials and equipment for encouraging body movements (e.g., bean bags, balloon and a stick or empty paper towel roll for hitting the balloon, a wagon and/or doll stroller to push or pull).
- Provides opportunities to climb, hop on one or two feet, lie on a skateboard and push with one's hands, or jump in leaves.
- Provides physical activities that stimulate the inner ear (e.g., rocking, swinging, rolling, spinning, or jumping).
- Provides physical activities in which only one side of the body is used at a time (e.g., hopping).
- Provides activities that promote crossing the midline of the body (e.g., moving limbs and eyes across the middle of the body from right to left or left to right to perform a task).
- Encourages the child's participation in art activities that utilize pincer grasp of thumb/forefinger (e.g., gluing small pieces of paper, peeling/sticking stickers, picking up small objects with fingers or tweezers).
- Provides activities that strengthen hand grasp (e.g., squeezing clay and play dough, squeezing water out of sponges, using a hand held hole punch to punch holes in paper of various thickness).

How it looks in everyday activities:

Scarf Dancing

Mrs. Madison places a large box on the floor and calls her class over to the circle time area. “Today we have a surprise. It is inside this box,” she says with a smile. “Who would like to guess what is in the box?” Carmindy raises her hand and says, “Is it something to eat?” “No, not something to eat,” answers Mrs. Madison. The other children take turns guessing. Mrs. Madison gives them some clues as they go along. She writes the guesses on the board to help everyone remember what has already been guessed.

Finally, Mrs. Madison opens the box and the children are excited to see many colored and textured scarves. Each child is able to choose a scarf and there are still some left over. Mrs. Madison explains that they will use the scarves to dance. She shows them how to move with the scarves floating up and down, around, between legs, and behind backs. Carmindy and her friend Tessa, who uses a wheelchair, try to toss the scarves back and forth between them. They giggle when Carmindy misses the scarf and has to chase it down.

Mrs. Madison puts on a CD that she has prepared with several different kinds of music: country, jazz, and classical. As the music plays, Mrs. Madison asks the children to describe it, “Does the music sound happy? Is it slow or fast?” she asks them. They match their movements to the different music.

Development of a skill in one area is related to and influences other developmental areas:

Adaptation:

- Can substitute plastic grocery sacks for scarves.
- Think about ways to involve children with special needs.
- Can be an inside or outside activity.

Extension:

- While moving with scarves, run, hop, jump, skip, or slide feet.

Social/Emotional:

- Pretends with objects.
- Follows simple directions.

Cognitive:

- Asks and responds to questions.
- Shows curiosity.
- Finds more than one solution to a problem.
- Uses creativity.
- Demonstrates awareness of cause and effect relationships.

Physical:

- Coordinates eye-hand movements.
- Discriminates differences in texture.
- Builds strength, flexibility, coordination in hands and fingers.
- Uses large muscles (gross motor skills).

Self-help:

- Chooses scarf.
- Moves without adult assistance.

Communication/Literacy:

- Repeats simple directions.
- Uses words to describe motions, needs, and how music makes them feel.
- Talks with friends.

PHYSICAL EDUCATION AND HEALTH FOUNDATION 2

F.2 - APPLICATION OF MOVEMENT CONCEPTS AND PRINCIPLES TO THE LEARNING AND DEVELOPMENT OF MOTOR SKILLS

Identifying Movement Concepts and Applying to Motor Skills

Young children begin to develop movement vocabulary and to use terminology accurately. The children apply movement concepts to motor skills by responding appropriately to direction (front/back, side/side, left/right, personal and general space, effort and force (hard/soft), and speed and flow (fast/slow).

Young children are learning when they:

- F.2.1 Identify and use a variety of spatial relationships with objects (e.g., the child will move self and/or an object over, under, beside, and through as directed by an adult).
- F.2.2 Apply movement concepts to specific movement situations (e.g., bend knees to soften the landing and avoid obstacles in the path).
- F.2.3 Follow rules for simple games and activities.
- F.2.4 Integrate a variety of educational concepts in games and rhythmic/fitness activities (e.g., child moves like a lion and roars as he/she moves).
- F.2.5 Identify and solve problems through active explorations.

A child can be supported by an adult who:

- Provides activities that assist the child in learning to follow simple rules and successfully participating in the group by listening to directions and waiting for a turn.
- Provides opportunities for the child to jump off of and over things and/or equipment.
- Involves the child in a variety of games using a soft ball.
- Supports the child's rhythm and movement experiences by providing pots, pans, bowls, and kitchen utensils as musical instruments.
- Provides materials and objects of various textures (e.g., variety of balls, pudding, shaving cream, painting with feet).
- Provides scissor activities to build hand coordination/control by beginning with the use of tongs to pick things up, moving to unstructured snipping to familiarize the child with the motion of opening/closing scissors without the pressure of making something, progressing to cutting within a track, and finally cutting on a line and stopping at a marked point.
- Provides activities that promote finger isolation and moving fingers individually (e.g., songs, finger-plays, an old typewriter, piano keyboard).
- Encourages different body positions when playing board games or while sitting during story or group times.

How it looks in everyday activities:

Follow the Leader

Mr. Adams and his 3 and 4 year old class are enjoying a beautiful fall day in the play area. He shouts to the children, "Follow the leader," a favorite game. Mr. Adams gives the directions for what to do next in a clear voice. He uses lots of direction words, such as "Let's go under the branches" and "Jump up over this rock." The boys and girls follow Mr. Adams, hopping three times on the hopscotch board, picking up and throwing leaves in the air, and swaying their bodies left and right. There is lots of laughter as the boys and girls have to think and move fast to keep up with their energetic teacher.

"New leader" Mr. Adams shouts and points to Keith. Keith turns to the front of the line to take his turn. He leads the group around the play area efficiently. Mr. Adams assists Kimbra, who has some vision impairment, with some of the actions and through some of the areas. After his turn, Keith chooses the next leader.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Maintains acceptable personal boundaries.
- Takes turns.

Cognitive:

- Follows directions/verbal.
- Counts a number of objects.
- Asks and responds to questions and statements.
- Uses creativity and imagination.

Physical:

- Imitates body movements.
- Tolerates textures.
- Initiates body movements.

Self-help:

- Completes activities independently.

Communication/Literacy:

- Understands verbal directions.
- Verbalizes directions to others.

PHYSICAL EDUCATION AND HEALTH FOUNDATION 3

F.3 - ENJOYMENT OF MOTOR AND SENSORY EXPERIENCES

Exhibiting Self-Confidence

Young children seek out and enjoy challenging physical activities that support their growth in self-expression while encouraging and supporting social interactions with others.

Young children are learning when they:

- F.3.1 Exhibit self-confidence while participating in movement activities.
- F.3.2 Talk about enjoying movement activities.
- F.3.3 Express both positive and negative feelings about participating in physical activities.
- F.3.4 Participate in a variety of gross/fine motor and sensory activities.
- F.3.5 Attempt novel gross/fine motor and sensory activities (e.g., running, hopping, jumping, marching, throwing, catching, swinging).
- F.3.6 Demonstrate a determination to develop skills through repetitive practice.

A child can be supported by an adult who:

- Provides the child with age-appropriate gross/fine motor and sensory activities that are fun, yet challenging.
- Talks with the child about feelings while participating in gross/fine motor and sensory activities.
- Encourages the child to act out various roles (e.g., people, animal movements) as a means of self-expression.
- Provides positive feedback when the child tries a novel gross/fine motor and/or sensory activity.
- Provides positive feedback as the child continues to attempt an activity that may not yet be easy.
- Incorporates various motor/sensory experiences while transitioning from one activity to another or from one place to another.

How it looks in everyday activities:

A Backyard Obstacle Course

Today Mrs. Stewart's class is going on a field trip to a local gymnastics program. The coach at the gymnastics center, Beth, has set up an obstacle course for the children to move through. There is a tunnel, some foam pyramids and blocks, bars, steps, mats with hand and foot prints, hula hoops, and many other things to try out.

Beth tells the children how to be safe at the gym. She shows them how to do the activity at each station. As she talks, Beth notices that one child is wearing a cast. She says, "Did you break your arm?" Ciera says that she fell when riding her bike, and that she will need to wear the cast a few more weeks. "It itches," she says making a funny face. Danny says, "I can help Ciera do some of the stations." Beth says he can help and that she will watch as well.

Ciera, Danny, and the other students start going through the course. Beth and Mrs. Stewart stay close, ready to provide any needed support for safety. Ciera is able to go through the tunnel, taking only a little more time than the others. When it is time to do a cartwheel, Ciera watches Danny, but doesn't think she can do it. Beth says she can skip or gallop instead, and Ciera does. "Maybe I can try the cartwheel when I get my cast off," Ciera says. "I'll bet you do a good one," Beth agrees.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Demonstrates confidence in one's growing abilities.
- Demonstrates increasing independence.
- Demonstrates trust in adults.
- Understands and respects differences.
- Helps others in need.
- Works cooperatively.

Cognitive:

- Finds more than one solution to a problem.
- Uses planning skills.
- Recalls a sequence of events.
- Recognizes patterns and repeats them.
- Uses creativity and imagination.

Physical:

- Learns skills that require automatic body awareness.
- Uses fine and gross motor skills.
- Coordinates eye/hand movements.
- Uses body with increasing control.

Self-help:

- Completes task with minimal or no adult assistance.
- Finds own work space.

Communication/Literacy:

- Talks with other children/adults during activity.
- Uses words to describe events and feelings.
- Repeats/follows simple directions.

PHYSICAL EDUCATION AND HEALTH FOUNDATION 4

F.1 - RESPONSIBLE PERSONAL HEALTH AND SAFETY PRACTICES

Developing an Awareness of and Respect for a Healthy Lifestyle

While participating in physical activities, young children are beginning to form an awareness of health and safety practices that support the growth of a healthy lifestyle. Also through activities and experiences, they are guided and encouraged by the adult to develop greater interdependence for personal care and safety.

Young children are learning when they:

- F.4.1 Participate actively in games, outdoor play, and other forms of exercise that enhance physical fitness.
- F.4.2 Show a growing independence in hygiene, nutrition, and personal care when eating, dressing, washing hands, brushing teeth, and toileting.
- F.4.3 Follow basic safety rules (e.g., fire and traffic/pedestrian safety).
- F.4.4 Avoid potentially harmful objects, substances, and activities.

A child can be supported by an adult who:

- Provides an appropriate amount of time for children to participate in indoor and outdoor play.
- Provides instruction on proper hand washing and drying.
- Supports the child's effort in toileting, brushing of teeth, and manipulating clothing.
- Provides a variety of snacks and meals as well as instruction in healthy eating habits.
- Encourages the child to be responsible for personal belongings (e.g., hanging up jackets, back packs).
- Uses teachable moments to instruct the child about pedestrian/traffic safety (e.g., drop-off/pick-up times, while walking, field trips, use of proper restraints).
- Takes the responsibility of keeping harmful objects and substances out of the reach of the child.
- Teaches the child about harmful objects and substances.
- Provides opportunities to participate in community health and safety programs (e.g., dentist, doctor, veterinarian, fire fighter, police officer).

How it looks in everyday activities:

Trip to the Grocery Store

Mrs. Scott's preschool class is going to a grocery store three blocks away. Dong-Moon has emerging use of both expressive (spoken) and receptive (hearing) English language skills. Dong-Moon's mother and father plan to go along with the group to help support their son's learning. They were pleased when Mrs. Scott asked if they would mind helping the rest of the class learn a few words in Korean.

As they get ready for the trip, everyone uses the restroom, independently using the toilet and washing and drying hands. The children take their jackets, hat, and gloves from the cubbies and put them on. Some children are able to zip and button on their own and others get help from Mrs. Scott.

As they walk down the street, Mrs. Scott reminds everyone of the safety rules that they practiced before the trip. The children recall how to stay on the sidewalk and how to follow the street signs that tell when to walk and when to stop. Zoe says, "The green light says when it is safe to walk" and Mrs. Scott adds, "But we still need to check for cars."

At the grocery, the children hear about different products, such as foods, medicine, and other pharmacy supplies, and products for cleaning. They talk about making healthy food choices, selecting from different kinds of foods, such as meats, fruits, vegetables, and grain products. They discuss how to stay safe around cleaning supplies and look at stickers with Mr. Yuck on them reminding them that this product is not for eating or drinking. Zoe says, "My Mommy keeps her cleaning stuff on a high shelf." Mrs. Scott notes that this is a great idea. Dong-Moon's parents notice that he seems to understand quite a bit of what is said, and that he is having fun with the other children. They decide to stay back but remain available in case he needs help with some of the words. Everyone chooses a piece of fruit to eat on the walk back to school. Dong-Moon goes around to all the children, telling them the Korean name for the fruit they chose. The children enjoy learning these new words.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Takes turns.
- Shares.
- Help each other.
- Identifies oneself as a member of a group.
- Understands and respects differences.

Cognitive:

- Asks and responds to questions.
- Demonstrates an interest in exploring.
- Classifies objects by similarities and differences.
- Makes comparisons.
- Follows simple directions.
- Identifies names of objects and events.
- Recalls a sequence of events.
- Demonstrates an interest in writing.

Physical:

- Moves from one place to another (gross motor skills).
- Demonstrates visual discrimination skills.
- Discriminates by taste and smell.
- Discriminates differences in texture.

Self-help:

- Prepares for the field trip (personal care).
- Chooses a piece of fruit for snack.

Communication/Literacy:

- Talks while walking and during the time at the grocery.
- Watches for print inside and outside.
- 'Reads' signs, boxes, containers.

PHYSICAL EDUCATION AND HEALTH FOUNDATION 5

F.5 - RESPECT FOR DIFFERENCES

Using Positive Interpersonal Skills

Young children begin to demonstrate an understanding and respect for differences among people in physical activity settings. Positive interpersonal skills such as cooperation, sharing, and courtesy toward others serve as a foundation for understanding and respecting differences.

Young children are learning when they:

- F.5.1 Take turns during physical activities.
- F.5.2 Help others during physical activities.
- F.5.3 Work together as a team toward a common goal.
- F.5.4 Play cooperatively with others during physical activities.
- F.5.5 Treat others with respect during physical activities.
- F.5.6 Resolve conflicts in socially accepted ways during physical activities.

A child can be supported by an adult who:

- Provides opportunities for the child to practice taking turns during physical activities.
- Provides opportunities for the child to serve as a peer buddy for another child during physical activities.
- Provides opportunities for the child to work with others toward a common goal.
- Introduces the child to the cultures of others through customs, dances, and rituals.
- Provides opportunities for the child to simulate various disabilities (e.g., walking on a line on the floor, wearing shop goggles that are scratched/covered to simulate a visual impairment).
- Talks with the child about differences in abilities (e.g., some children more easily jump, some more easily hop).

How it looks in everyday activities:

Rolling the Balls

The ten children in Ms. Woods' preschool love active play and especially ball play. This is great for Ms. Woods who, herself, enjoys the outdoors and sports. "Today boys and girls we will be rolling these balls back and forth. Everyone needs to get a partner," Ms. Woods tells the children.

Ricky and Max decide to be partners, since they are best friends. Max uses a wheelchair for mobility and Ricky does not. Ricky asks Ms. Woods to help Max get out of his wheelchair and in position for the game. Ms. Woods helps Max get into a position that supports his back and keeps his hands free for the game. Max knows what positions work best for him, and he is soon ready to play the game. The boys sit close together with their feet touching so that the ball stays in a confined space that is within Max's reach. They roll the ball back and forth shrieking with delight.

The OT, Sandy, stops by and sees the activity. From her bag, Sandy pulls a ball that is a little heavier and has some texture. She gives the ball to Max and Ricky and suggests that they try it instead of the one they are using. "This ball will help Max get a little stronger in his arms," Sandy tells Ms. Woods. Ms. Woods looks at the new ball and says, "Because it feels different, it might also be a good ball for a student with limited vision," she says. Sandy adds, "That is right. Would you like to borrow it for a while?" Ms. Woods agrees and the ball game resumes.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Interacts with others.
- Identifies oneself as a member of a group.
- Demonstrates interest and participates in activity.
- Understands and respects differences.
- Works cooperatively.

Cognitive:

- Uses planning skills.
- Demonstrates an awareness of space.
- Follows simple directions.
- Persists in tasks.
- Finds more than one solution to a problem.
- Makes comparisons.

Physical:

- Uses gross motor skills with confidence.
- Rolls an object in the intended direction.
- Demonstrates visual discrimination skills.
- Discriminates differences in weight and texture.
- Coordinates eye-hand movements.

Self-help:

- Rolls the ball without adult assistance.
- Retrieves the ball when necessary.

Communication/Literacy:

- Follows simple directions.
- Uses words to describe activity/feelings.
- Conversations during the activity.

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MUSIC
THREE TO FIVE

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FOUNDATIONS FOR MUSIC

Music is natural, spontaneous, and fun for young children. Music moves children emotionally and physically just as with adults. It helps set a mood. Singing and chanting help children make routine activities and transitions smoother and more enjoyable. Brain research tells us that intuitive aptitude for music stabilizes at about age 9. The early childhood years are critical to the development of the child's potential for understanding and producing music. Music is an important part of an early childhood curriculum because of its multiple benefits: calming, stimulating, easing transitions, inviting movement, and serving as a learning tool. Music fosters child development. Music may be used to help children think divergently or creatively. There are many opportunities for music to interact with other curricular areas and to provide practice for social, language, cognitive, and physical development. The attention span of children can be lengthened through good listening experiences. Music play with songs and instruments in early childhood settings can lead young children to deeply satisfying experiences for learning and communication.



KEY FINDINGS

- ♦ **Musical experiences offer children alternative modes of symbolic thinking and expression.**
[Mitchell, A. and David, J., (Eds.), 1992; Trister Dodge, D. and Colker, L.J., 1999]
- ♦ **Music is “the universal language.” Through music, children learn respect for other cultures. Music can help children broaden their understanding of each other.**
[Mitchell, A. and David, J. (Eds.), 1992; Palmer, Hap, 2001]
- ♦ **Music is an enjoyable art form that aids self-expression.**
[Taylor, B., 1991; Trister Dodge, D. and Colker, L.J., 1999; Mitchel, A. and David, J., (Eds.), 1992]
- ♦ **The early childhood years are critical to the development of a child’s potential for comprehending and producing music.**
[Seefeldt, C, (Ed.), 1999]
- ♦ **Music is important to socialization. It is one of the highest forms of human group interaction. Music has the power to influence feelings and emotions.**
[Mitchell, A. and David, J. (Eds.), 1992; McDonald, D.T. and Simons, G.M., 1989]
- ♦ **Music is an early form of communication of emotions, experiences, or ideas. Children think with their bodies long before they think with words. Music is a comfortable way for children to express themselves.**
[Trister Dodge, D. and Colker, L.J., 1999; Taylor, B., 1991]

MUSIC FOUNDATION 1

F.1 - MUSIC APPRECIATION

Children Show Enjoyment of Music Through Facial Expressions, Vocalizations, and Various Movements

Music naturally delights children. Young children are comfortable with music and movement. Music activities are fun for children and also benefit their development. Music brings a new dimension of beauty into their lives. As children grow in their appreciation of music and movement, they acquire a gift that will bring them pleasure throughout life.

Young children are learning when they:

- F.1.1 Smile or laugh when music is played.
- F.1.2 Verbally express enjoyment.
- F.1.3 Sing along to familiar songs.
- F.1.4 Request certain songs/finger plays, etc.
- F.1.5 Clap hands in glee/begin to clap in rhythm.
- F.1.6 Dance/sway/tap toes/jump/hop to music alone or with others.
- F.1.7 Respond positively to transitions from desired to less desired activity when paired with music.

A child can be supported by an adult who:

- Listens to children and includes their ideas and interests in planning the curriculum.
- Provides opportunities for children to experience a variety of music media (e.g., singing, finger plays, instruments).
- Uses a variety of music (e.g., classical, jazz, children's music, top 40) during music time and various times of the day.
- Makes music an integral part of the day.
- Delights in music with young children.
- Plays a supportive role as young children experiment and discover music.
- Recognizes the individual differences reflected in each child's musical preferences.
- Exercises to music.

How it looks in everyday activities:

Music in Everyday Activities

Mr. Tim's class is actively engaged in a variety of typical preschool activities. Some children in the housekeeping center are acting out a family preparing for dinner. Boys and girls are building in the block area, and two children are at the water table filled with rice and corn along with the usual utensils found on the table (e.g., containers, lids, spoons, funnels, sieves). Nina finishes her pretend meal and uses the bottom of the play skillet and a spoon to call the family to the table. Mr. Tim becomes aware that she is banging loudly but rhythmically. He comments on her pattern and volume and asks if she can mimic a pattern he creates using different utensils. Her friend in housekeeping immediately picks up the bell on Mr. Tim's desk and rings it in the same rhythmic pattern. The children in the block corner notice the activity and join in the group tapping their blocks together. Sally presses a button on her communication device to produce beeping sounds that keep time with the rhythm. Mr. Tim moves to the water table filled with rice and corn and asks the children to figure out how they might use those items on the table to create the same rhythmic pattern that is happening in other areas. The children fill their containers with the rice and corn and use them as shakers to join in the music.

Later in the morning, Mr. Tim invites the children to bring their self-discovered instruments to the circle and directs the discussion using words like loud and soft, fast and slow, high and low, pleasant and unpleasant. At the end of the discussion, he comments and praises them on their new-found instruments and the way they created music. He encourages the children to put their instruments away appropriately in each area.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Shows preferences for different sounds.
- Creates and shares sounds.
- Cooperates with friends.

Cognitive:

- Creates rhythmic patterns.
- Produces both repetition and creative deviations of sound and sound patterns.

Physical:

- Uses body actions (large and small muscle movements) to make sounds.
- Uses fine motor skills to pick up rice and corn.

Self-help:

- Cleans up materials.

Communication/Literacy:

- Uses contrasting terms such as loud and soft, high and low, fast and slow, and pleasant and unpleasant to the ears.

MUSIC FOUNDATION 2

F.2 - PARTICIPATION/EXPLORATION/PRODUCTION

Children Produce Vocal/Instrumental Music and Rhythmic Movements Spontaneously and In Imitation

Throughout the early childhood years, children are learning to do new things with their bodies. Young children readily sing and perform to catchy music or commercials on the radio or television. Young children enjoy activities that have rhythm and repetition. They like to imitate actions such as playing the piano or guitar or singing.

Young children are learning when they:

- F.2.1 Hum or sing familiar/original lullaby while rocking a doll.
- F.2.2 Produce rhythmic patterns to familiar songs (e.g., *Jingle Bells*).
- F.2.3 Create own alternate pattern/action for a finger play to a familiar song.
- F.2.4 Spontaneously explore sounds produced by striking a variety of materials (e.g., pots and pans, wooden spoons, measuring cups, wooden blocks).
- F.2.5 Hum or sing along to tune playing on radio, tape/CD player, or television.
- F.2.6 Sing songs from favorite movies or television shows from memory.
- F.2.7 Follow repetitive patterns of movements.
- F.2.8 Use words/concepts learned through music in non-musical activities.

A child can be supported by an adult who:

- Helps the child create music by using his/her own words.
- Plays a supportive role as the child experiments and discovers music.
- Uses familiar songs to help the child solve problems.
- Identifies natural rhythm in the classroom or play area (e.g., clocks, squeaks, drips, bouncing balls, swaying trees).
- Claps rhythmic patterns to names, poems, and nursery rhymes and has child repeat them or do them together.
- Uses body actions to music (e.g., *Head, Shoulders, Knees, and Toes*).

How it looks in everyday activities:

The Music Center

Tom, Madison, and Caesar choose the music center for their free time activity. Mrs. Schmitt has filled the music center with some homemade instruments. There are foil pan tambourines, oatmeal box drums, wooden sandpaper blocks, and rubber band guitars. There are also some simple commercially made instruments, such as bells, a triangle, and recorders.

Each child chooses an instrument to play. Caesar states, "I want to play the drums," and he chooses the oatmeal drum. Madison is a little disappointed but selects a recorder. "Maybe we can trade later," she says to Caesar, who agrees. Tom uses his picture book to show Mrs. Schmitt which instrument he prefers. He chooses the sandpaper blocks, and Mrs. Schmitt helps him place the blocks in the best position to get some sounds from them.

A lively band is formed, and the children play for several minutes. Mrs. Schmitt claps her hands along with the music and encourages the children to continue. After a bit, Mrs. Schmitt notices that Caesar is playing a particular pattern. "Can you two copy the pattern that Caesar is making?" she asks. Madison and Tom listen then copy Caesar's pattern. When the song is over, Tom signs "my turn" and taps out a new pattern with the blocks. The other children follow his lead next. Caesar starts a song to go with Tom's rhythmic pattern.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Shares and cooperates with others.
- Expresses emotions through music.

Cognitive:

- Experiments with a variety of sounds.
- Imitates rhythmic patterns.

Physical:

- Uses gross and fine motor skills.
- Exhibits improved coordination.

Self-help:

- Treats instruments with care using guidelines established by the teacher/adult.

Communication/Literacy:

- Practices non-verbal communication skill of taking turns.

MUSIC FOUNDATION 3

F.3 - ANALYSIS

Children Begin to Differentiate Variations in Tempo, Dynamics, and Types of Sounds Made by Different Classes of Instruments (Percussion, Wind, and String)

Children enjoy real or improvised musical instruments. They like to keep time and hear others make music. They develop creativity and imagination by responding to problems in movement and music. Young children refine their listening skills by noticing changes in tempo or pitch.

Young children are learning when they:

- F.3.1 Play classroom instruments.
- F.3.2 Moderate movements to tempo (fast/slow) and dynamics (loud/soft) of music heard.
- F.3.3 Moderate vocalizations to tempo and dynamics of music.
- F.3.4 Choose real or improvised instruments to play along with instrument heard.
- F.3.5 Distinguish among the sounds of several common instruments.

A child can be supported by an adult who:

- Builds a strong and varied repertoire of rhythms, finger plays, poetry, and movement exercises.
- If not musically inclined, arranges for another person to assist or uses records, tapes, or CDs rather than eliminate music from the daily curriculum. The voice is an important musical instrument, and an ordinary voice is all that is necessary—enthusiasm is what makes the difference.
- Provides experiences that help the child release feelings constructively, whether the feelings are of anger or hostility or joy and excitement.
- Over a period of time, teaches about the three groups of instruments (e.g., woodwinds, percussion, and string).
- Provides props that encourage rhythm and music (e.g., blocks, sticks, coconut shells, shakers, or bells).
- Provides guidance so the child will know what is expected. Can the child play with the new drum, or is it just for the teacher? Do instruments stay in a certain area? Who can operate the record player or tape recorder?

How it looks in everyday activities:

Sound Table

Mrs. Leslie's class likes music and they have been listening to many CDs throughout the year. They sing and like to make music using the variety of homemade instruments that Mrs. Leslie provides. She announces one morning that she is starting a "sound table" that anyone can contribute to. "I have put out some of these little boxes and some buttons, paper clips, and other little objects." She shows them how to put the little objects into the boxes and shake them. Mrs. Leslie says, "Now let's see what else we have in the room that we can use for the sound table."

Emily finds some small beads in the art area, and Jack sees some little blocks in the building area. Tony, a student with a visual impairment says, "There are wood chips and gravel outside we could use!" Mrs. Leslie helped Tony gather the gravel and wood chips he thought of.

Over time, the sound table grew and grew. Mrs. Leslie sometimes added new containers, such as an old metal box or a small coffee can. Parents sent in marbles, rice, beans, and small metal balls. Everyday the students checked the sound table to see what was new. Mrs. Leslie liked seeing how the children became more aware of sound. It was great to see their music become more complex as the children increased their interest in exploring the sound making possibilities of their self-made instruments.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Finds and shares objects for the sound table.
- Works together to create various sounds.

Cognitive:

- Chooses and discriminates sounds made by various objects.

Physical:

- Uses small muscles.
- Uses gross motor skills if the children create a marching band.

Self-help:

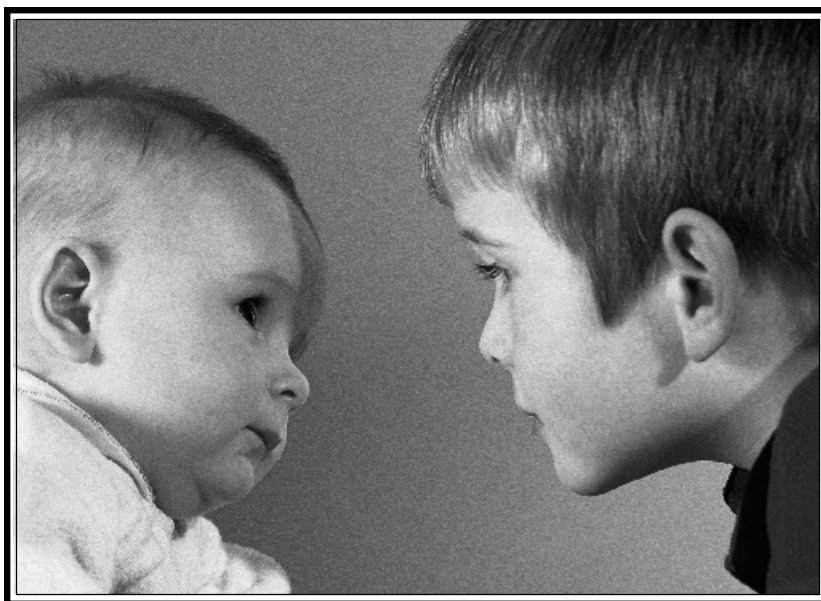
- Finds objects and creates own instrument.

Communication/Literacy:

- Communicates feelings with the instruments created.

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VISUAL ARTS
THREE TO FIVE

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FOUNDATIONS FOR VISUAL ARTS

Young children naturally enjoy art. Art benefits all aspects of a child's development. Creative expression helps children realize they are worthwhile people with good ideas who can do things in different ways. It contributes to helping children better understand their world. Brain research indicates that creativity increases in preschool children until the age of 5, when a sharp decrease begins. Art should be integrated into all preschool curriculum areas. Art materials that are appropriate to the developmental level of the child promote curiosity, verbal and nonverbal expression, reading and math skills, physical development, social-emotional skills, and self-help skills. The adult needs a wholesome, accepting attitude toward the use of creative and artistic materials rather than thinking of art materials as a waste of time or messy. Adults sometimes wonder if coloring books, patterns, and pre-cut models are appropriate art experiences for young children. These materials are not recommended as a means for providing art experiences. These materials are often frustrating to three, four, and five-year old children who do not have the manual dexterity or eye-hand coordination to stay within the lines, to cut along the lines, or to reproduce a picture made by an adult. Children like to draw or make things as they see them. It is recommended that adults rely on activities that allow children to be creative and individualized in their artwork.



KEY FINDINGS

- ♦ **Art enables children to learn many skills, express themselves, appreciate beauty, and have fun all at the same time.**
[Trister Dodge, D. & Colker, L. J., 1999; Epstein, A.S., 2001]
- ♦ **For young children, the process of creating is what's most important, not what they actually create.**
[Trister Dodge, D. & Colker, L. J., 1999]
- ♦ **Working with art materials and uninterrupted time for artistic expression helps benefit all aspects of a child's development. Art enhances other areas of development such as perception, cognition, fine and gross motor skills, language, and social interaction.**
[Taylor, B. 1991; Trister Dodge, D. & Colker, L. J. 1999; Mitchell, A. & David, J., (Eds.) 1992]
- ♦ **Children learn about the world through sensory experiences. Art helps children examine some of the complexities of the real world in small manageable pieces.**
[Taylor, B. 1991; Seefeldt, C., (Ed.) 1999]
- ♦ **If children develop appreciation for aesthetics at a young age, their environment becomes more meaningful.**
[Epstein, A.S., 2001]
- ♦ **The adult plays an important role in planning and providing art experiences for the young child. Visual arts are critical to the development of an integrated, meaningful early childhood curriculum.**
[Taylor, B. 1991; Seefeldt, C., (Ed.) 1999]
- ♦ **Children express how they think, feel, and view the world through their art. Children learn from experiences that allow them to express their ideas and feelings.**
[Taylor, B. 1991; Trister Dodge, D. & Colker, L. J. 1999]

VISUAL ARTS FOUNDATION 1

F.1 - ART APPRECIATION

Begins To Understand and Share Opinions About Artwork and Artistic Experiences (Their Own or Others)

Young children will become aware that the world is richer because of art. They will become aware of different cultures, and that art is a way people express ideas and feelings. Different people have different reactions and opinions about works of art.

Young children are learning when they:

- F.1.1 Imitate different cultures through art.
- F.1.2 Examine art products from different world cultures.
- F.1.3 Reflect on differences and preferences as he/she encounters artwork.
- F.1.4 Describe art work and interpret potential intentions of the artist.
- F.1.5 Express feelings about art work.
- F.1.6 Wonder about or ask questions about works of art.
- F.1.7 Respond in various ways to the creative work of others (e.g., body language, facial expression, or oral language).
- F.1.8 Role play imaginary events and characters in the media.

A child can be supported by an adult who:

- Recognizes the different cultures within the group.
- Expresses a sense of awe and appreciation of art work.
- Values each child's creative efforts.
- Provides art media and materials that are culturally responsive to diversity of families and community.
- Provides artifacts that celebrate human diversity and history.
- Asks open-ended questions.
- Describes what the adult sees.
- Brings reproductions of art into the environment.
- Provides an accepting attitude toward each child's ideas.
- Notices and comments about real and imaginary events and characteristics.
- Expresses feelings about art.
- Imagines or creates a story from artwork.

How it looks in everyday activities:

A Trip to the Art Museum

Mr. Price's pre-K class is planning a field trip to the art museum. He prepares the students by telling them that people express their ideas and feelings about the world through their artwork. Mr. Price helps the children understand that artwork might be a painting, a sculpture, or a textile work. The colors could be vibrant or subdued. The piece of art might look very much like what it represents, or it could look very different. The boys and girls have many ideas and questions as they board the bus for the trip.

At the museum, Mr. Price asks questions to help the children think about the art they are viewing. He shows them an oil painting of flowers and another one of bold stripes and lines. "How do you feel when you look at these pictures" he asks, "the same or different?" The class walks into another room with several statues. Mr. Price invites the children to try to imitate the poses the statues make. Ian tries to hold a pose like the statue he sees of a knight. "I am a warrior!" he shouts.

Back in the classroom, Mr. Price provides paper, paint, brushes, and some modeling clay. "Everyone can make their own piece of art," Mr. Price tells the children. "Think about what you saw at the museum. There were different kinds of painting and sculptures, with lots of different sizes, colors, lines, and shapes. What kind of artwork would you like to make to take home?" The children get started on their projects and Ian says, "I want to make a guy with a sword." Mr. Price helps Ian use the clay to make a model of a knight. "Art is really fun" Ian says, satisfied with his work.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Expresses feelings and experiences pride.
- Shares and cooperates with others.

Cognitive:

- Explores art materials.
- Uses processes and techniques to give form to what has been seen and learned.
- Learns about shape, line, color, through experiences.
- Develops planning skills.

Physical:

- Develops large and small muscle skills and eye-hand coordination.

Self-help:

- Demonstrates care and persistence in artwork.

Communication/Literacy:

- Promotes communication by sharing ideas and feelings.

VISUAL ARTS FOUNDATION 2

F.2 - CREATING ART: PROCESS AND PRODUCT

Expresses Personal Interests, Ideas, and Feelings Through Art

Children express how they feel, think, and view the world through their art. Through art, children can convey what they may not be able to say in words. Young children develop independence, confidence, pride, and self-expression through concrete, hands-on learning in an environment that stimulates creativity through art.

Young children are learning when they:

- F.2.1 Participate freely in dramatic play activities that become more extended and complex.
- F.2.2 Express self in dramatic play through story telling, puppetry, and other language development activities.
- F.2.3 Compare and contrast own creations and those of others.
- F.2.4 Use various art forms such as dance, theater, and visual art as a vehicle for creative expression.
- F.2.5 Select different art media to express emotions or feelings. (e.g., painting with bright colors to match a playful mood)
- F.2.6 Use art media to channel frustration and anger in a socially acceptable way. (e.g., punching and pounding clay)
- F.2.7 Show individuality by actions such as drawing a pumpkin that differs in color and design from the traditional.
- F.2.8 Engage in cooperative pretend play with another child.

A child can be supported by an adult who:

- Provides an accepting attitude toward child's ideas.
- Gives recognition by exhibiting each child's work.
- Uses child's imagination as a motivation for art (e.g., the adult reads a fantasy story, provides props so the child can reenact the story, and provides art materials so child can represent the fantasy story).
- Views art materials as meaningful rather than a waste of time and messy.
- Provides creative experiences that are well planned and executed.
- Demonstrates the ability to represent experiences, thoughts, and ideas using several art forms.
- Uses a variety of art media for self-expression.

How it looks in everyday activities:

Finger Painting

As they left their house one morning, Tamyra was frightened to see a large dog approach. The dog barked loudly and Tamyra felt threatened by him. Her father spoke in an authoritative voice to the dog, saying "Go home." The dog turned and trotted off, but Tamyra still felt scared.

At school, Tamyra's teacher, Ms. Austen had planned to do a finger painting day. She knew that finger painting is a great sensory activity, and that it can offer young children an emotional release. Ms. Austen gave each child a piece of paper dampened with a sponge to help it stick to the table and lay smoothly. She let the children choose a color and then put a heaping spoonful of the paint on the page. For Dan, a student with visual impairment, Ms. Austen put a wooden frame around the paper so he would be able to keep his painting on the page. Today Ms. Austen also had some glitter to put in the paint for those who like to feel the gritty texture. Dan said, "I like the feel of that glitter, Ms. Austen. Can you put some on my paper?" Ms. Austen said "sure" and then talked with the children about the different ways to use their fingers, fists, knuckles, palms, and even nails to make interesting patterns in the paint.

Tamyra was still a little shaken from her experience with the dog. She had stopped crying but was quieter than usual and stayed near Ms. Austen. Tamyra's father had explained what happened so Ms. Austen would be able to give Tamyra some support during the day. She touched the paint carefully and moved it around her paper. Tamyra made a dog's face on her paper. Ms. Austen saw that the dog had big teeth. Tamyra next made a circular line around the dog's neck and some vertical lines all around the dog. Finally she drew two figures next to the vertical lines. Ms. Austen asked, "Would you like to tell me about your picture?" Tamyra replied, "The dog has a collar and a fence to keep him in so he can't get me. This is me and my dad is going to tell the dog to be good." "I like your picture," Ms. Austen said. "Me too," Tamyra said, and then added, "Can I draw a different one? I want to make a tree now."

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Expresses feelings in socially acceptable ways.

Cognitive:

- Chooses raw materials for project..

Physical:

- Develops fine and gross motor muscles through self-expression.

Self-help:

- Practices limits or guidelines established by the teacher.

Communication/Literacy:

- Promotes verbal and non-verbal communication by sharing ideas and feelings.

VISUAL ARTS FOUNDATION 2

F.2 - CREATING ART: PROCESS AND PRODUCT (con't.)

Uses Symbols, Elements Such As Shape, Line, Color, and Texture and Principles Such As Repetition In Art Experiences

The ability to use symbols to make one thing stand for another is an important milestone in cognitive development. Art enhances children's ability to interpret symbols. Working with art materials offers children opportunities to learn about color, shape, design, and texture. As children draw, paint, and make collages they experiment with color, line, shape, and size.

Young children are learning when they:

- F.2.9 Use different colors, surface textures, and shapes to create form and meaning.
- F.2.10 Use objects as symbols for other things. (e.g., a scarf to represent bird wings or a box to represent a car)
- F.2.11 Pretend through role-playing.
- F.2.12 Progress in ability to create drawings, models, and other art creations that are more detailed, creative, or realistic.
- F.2.13 Decide which lines should be long or short, wavy or straight, thick or thin, and what color and where on the paper.
- F.2.14 Watch an activity before entering into it.
- F.2.15 Enjoy repetition of materials and activities to further explore, manipulate, and exercise the imagination.

A child can be supported by an adult who:

- Does not pressure the child to “make something” to account for time.
- Keeps in mind that growth is uneven and that advances in physical growth and a child's knowledge of the body can affect artistic expression.
- Recognizes variations in children's physical, emotional, and intellectual development, and uses art materials and plans experiences accordingly.
- Serves as a facilitator, making materials available in a setting where the child can work undisturbed and motivate the child to experiment and discover.
- Talks about how the work is done and leaves it to the child to talk about what it stands for and what it means to the child. The adult comments on lines, shapes, colors, patterns, textures, how they are repeated, and how they are arranged.
- Offers the materials regularly over the year. One exposure to materials is not enough. (Children continually presented with new media are never able to develop techniques necessary to use the materials to create art.)

How it looks in everyday activities:

Creation of designs

The children in Ms. Terry's home child care program looked glumly outside at the heavy rain, feeling that it would never end. Josh said, "Let's watch a movie." Ms. Terry said, "I have a different idea. We can use all of this scrap paper and make collages." "What's a collage?" Lauren wondered. "It's when you put a whole bunch of pieces of paper together to make something," Josh said.

Ms. Terry showed the children that they could paste the paper they chose into the lids of some old shoe boxes. She also had some buttons, feathers, ribbons, and other decorative materials that they could use in their artwork. She helped them to use the right amount of glue on each piece so that the collage did not get too wet. Some of the children liked to tear the paper into smaller pieces and some used a scissors. Tasha, who has some developmental delays, needed help to stay on task. Ms. Terry helped her make choices and glue the materials.

Lauren found many pink and red pieces of paper and several pieces of red ribbon. She alternated the pink and red, making a nice pattern in the lid. Josh did not plan his collage but added the pieces that he liked as he found them. He was surprised when he suddenly noticed that his collage looked like a truck. Ms. Terry asked Tasha to tell about her collage and she signed "dog." She pointed to different parts of the collage to show the dog's head and tail. Ms. Terry hugged Tasha and said, "I like your dog collage."

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Asserts individuality.

Cognitive:

- Enhances creativity by combining materials and textures in a unique way.
- Explores objects and materials independently.
- Experiments with line, shape, color, and size.

Physical:

- Refines small muscle movements.

Self-help:

- Helps with the clean-up of sorting the various materials into appropriate storage containers and washing glue brushes in warm water.

Communication/Literacy:

- Talks about work.

VISUAL ARTS FOUNDATION 2

F.2 - CREATING ART: PROCESS AND PRODUCT (con't.)

Uses Different Art Media and Materials In a Variety Of Ways For Creative Expression, Exploration, and Sensory Experience

The critical component of creative art is the process rather than the end result or product. Children learn from experiences that allow them to express their ideas and feelings. With the emphasis on academic achievement, parents and teachers can become too product or time conscious. The art process benefits all aspects of development. Children learn many skills, express themselves, appreciate beauty, and have fun through art.

Young children are learning when they:

- F.2.16 Demonstrate increasing skill in using different art materials. (e.g., paper, paint, clay, scraps, buttons)
- F.2.17 With various media, use shapes, lines and color.
- F.2.18 Develop growing ability to plan, work independently, and demonstrate care and persistence in a variety of art projects.
- F.2.19 Use a variety of materials (e.g., crayons, paint, clay, markers) to create original work.

A child can be supported by an adult who:

- Recognizes that a child's representation of something may not be entirely realistic. It is important to wait for the child to identify the figure or ask if the child wants to say something about the picture rather than asking "what is it?"
- Provides basic art supplies that include (1) painting materials, (2) drawing and pasting materials, and (3) sculpting and molding materials.
- Supplies storage and an attractive, neat work area. Shelves should be accessible and contain separately arranged and labeled places for clay, collage, painting and drawing materials, and different kinds of paper.
- Arranges time and space. Children need uninterrupted time to investigate and experience art in their own way. They also need space in which to move.
- Provides art experiences that consist of set-up, work time, and clean-up.

How it looks in everyday activities:

Handprinting

The children in Mrs. Brown's early care and education program made hand prints one day. Mrs. Brown prepared a washable work surface with two colors of finger-paints, a large piece of solid colored paper tacked to the wall, and a bucket of warm water nearby for washing hands.

Mrs. Brown let each child squeeze a blob of paint onto the table. "Put your fingers and hands in the paint. How does it feel and smell? Move the paint all around," she told them. Because Sarah has some limited mobility, Mrs. Brown gave her some hand over hand assistance with the paint. She let Sarah put her handprint on the big paper first and then tacked the paper to the wall for the others.

As each child made a handprint, Mrs. Brown labeled it with their names. Abdul, who is learning English, held his hands out to compare the size of his hand with that of another smaller student. This started the children talking about the sizes and directions the handprints were made. Some were larger and some were smaller. Some had long fingers, and some had wide palms. Some students put their hands facing right and some left. Next someone noticed that the colors were also different. "Let's count how many red, blue, and green handprints," Mrs. Brown suggested. The children determined there were more red than blue and more blue than green handprints. Sarah signed the different colors and numbers and Abdul said the color and number names in his home language. Mrs. Brown noticed that the children tried to say the new words after him, and that some tried to use sign language to count later that day.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Talks about how everyone cooperated to make the mural.
- Participates in group activity to stimulate curiosity through hands-on experience.

Cognitive:

- Learns concepts of directionality, big and small, colors, more or less.

Physical:

- Enhances motor development.

Self-help:

- Feels independent and committed to the well-being of the child care home community.

Communication/Literacy:

- Responds to the work of others through body language, facial expression, or oral language.

VISUAL ARTS FOUNDATION 3

F.3 - CAREERS AND COMMUNITY

Experiences Art-Related Professionals Through Field Trips, Visiting Artists, and Museums

Young children will become aware of art as a profession. They will become acquainted with local artists, museums and displays, and various professions that involve art such as painters, sculptors, clothing designers, animators, graphic arts designers, etc.

Young children are learning when they:

- F.3.1 Talk about different art professions.
- F.3.2 Mimic art works and forms by various artists.
- F.3.3 Recognize people in the community who are artists.
- F.3.4 Learn to enjoy and respect the art work of others.
- F.3.5 Visit and discuss works of art at various locations.
- F.3.6 Display interest in the artwork of others.

A child can be supported by an adult who:

- Invites various local artists into the classroom.
- Provides opportunities to take field trips (e.g., museums, art shows, displays).
- Reads books that demonstrate various art forms.
- Introduces picture books as pieces of art.
- Encourages the child to talk about art in the community.
- Provides various art mediums so that a child can mimic art forms.
- Encourages respect for art pieces.
- Exposes the child to beautiful and unusual pieces of art.
- Displays the child's art work.

How it looks in everyday activities:

A Practical Use of Lines

The staff of the Lollipops Child Care Program and Preschool was brainstorming ways to get parents more involved in their program. Ms. Peggy had the idea to invite parents to visit the classroom and tell about their jobs. “Kris’s mom, Monica, would be a good visitor. She is a graphic artist,” suggested Mr. Arthur.

Monica agreed to be the first visitor. She brought many samples of her work, including posters, greeting cards, and a book that she illustrated. Monica also showed the children some Websites that she designed. Ms. Peggy had told Monica that the class had been discussing the kinds of lines that are found in artwork. Monica asked the class, “Do you see any examples of different lines in the work that I brought to share?”

Will raised his hand and said, “There are some fat, wavy lines on that poster.” “And some curvy lines that are different colors on that Website we saw,” added Rachelle. Ms. Peggy said, “Remember some of the words that tell how the lines are in relationship to each other?” Natalie raised her hand and said, “Some of the lines are parallel and some are per-per-per, what’s that other word?” “Perpendicular.” finished Ms. Peggy and added, “Very good!”

Monica challenged the children to use some of the lines they saw in their next art project. After she left, Natalie said to Kris, “Your mom is cool. I want to be an artist like her when I grow up.” “Me too,” Kris said, “and a fireman.”

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Shares and cooperates.

Cognitive:

- Uses and discriminates between types of lines.

Physical:

- Uses small motor muscles.

Communication/Literacy:

- Communicates ideas verbally to others.

VISUAL ARTS FOUNDATION 3

F.3 - CAREERS AND COMMUNITY (con't.)

Makes Connections Between Art and Other Curriculum Areas

Children will begin to make a connection between art and other subjects such as science, mathematics, language arts, social studies, physical education, and music. Skills and concepts taught in other content areas can be reinforced through art lessons and will make learning more meaningful.

Young children are learning when they:

- F.3.7 Make patterns on their own.
- F.3.8 Identify patterns in their environment.
- F.3.9 Observe and discuss art forms during a nature walk.
- F.3.10 Imitate art forms of illustrators after listening to a story.
- F.3.11 Sort objects by texture, size, or color.
- F.3.12 Measure ingredients for various recipes.
- F.3.13 Use objects in nature to create a collage or art piece.

A child can be supported by an adult who:

- Reads books and discusses them as pieces of art.
- Provides opportunities for the child to observe art in nature.
- Creates an environment where the child can explore the world through sensory experiences.
- Displays art work in the community.
- Provides materials where the child can sort objects on his/her own.
- Provides art experiences in all areas of the curriculum (e.g., math, science, reading, writing, music, movement).
- Encourages appreciation of art.
- Provides opportunities for the child to describe art works through dictation or writing.
- Allows for the child to create patterns using various objects (e.g., beads, sequins, blocks, cubes, buttons).

How it looks in everyday activities:

Integrating art into the curriculum - *Crazy About Crayons*

Everyone was crazy about crayons at the Sunshine Preschool. The staff had decided to use crayons as an integrated theme unit across the classes. The teachers worked together to figure out crayon related themes for art and reading, science, math, music, and social studies. Each teacher took a curriculum area and then they all shared their ideas. For example, the art teacher, Ms. Rowan, found many different kinds of crayons, such as glitter, scented, and glow-in-the dark. She also found a variety of different kinds of materials to color on, such as construction paper, waxed paper, tissue paper, and newspaper. Ms. Rowan invited the other teachers to choose the crayons and paper they would like to use for their students.

Ms. Maggie and Ms. Kelli worked together to find some books about crayons that could be used for reading, science, and social studies. They found some interesting books that told how crayons were made. Ms. Kelli found a recipe for making crayons online, and several groups made the crayons using wax and tempura paints. Marty said, "Can we take our crayons over to the art area?" Ms. Rowan said, "Of course!" and the students got to test out the newly made crayons. While they did, they sang a song about crayons, Give Crayons a Hand.

Development of a skill in one area is related to and influences other developmental areas:

Social/Emotional:

- Talks about how everyone cooperated to make the mural.
- Participates in group activity to stimulate curiosity through hands-on experiences.

Cognitive:

- Learns about colors.
- Creates a work of art using pictures, symbols, or words from another discipline.

Physical:

- Enhances motor development.

Self-help:

- Develops planning skills.

Communication/Literacy:

- Responds to the work of others through body language, facial expression, or oral language.
- Asks and responds to questions.

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ATTACHMENTS



Chapter 4: The Teacher's Role

Exploring Content in Interest Areas

	Blocks	Dramatic Play	Toys & Games	Art	Sand & Water
Literacy	<p>Have paper, markers, and tape available for children to make signs for buildings.</p> <p>Hang charts and pictures with words at children's eye level.</p>	<p>Include books and magazines in the house corner.</p> <p>Introduce print (shopping lists, receipts, message writing, etc.).</p>	<p>Talk about colors, shapes, pictures in a lotto game.</p> <p>Provide matching games for visual discrimination.</p>	<p>Invite children to dictate stories to go with their artwork.</p> <p>Share books about famous artists and their work with children.</p>	<p>Add literacy props to the sand table such as letter molds or road signs.</p> <p>Encourage children to describe how the sand and water feel.</p>
Math	<p>Suggest clean-up activities that involve sorting by shape and size.</p> <p>Use language of comparison such as taller, shorter, the same length.</p>	<p>Add telephones, menus, and other items with numbers on them.</p> <p>Participate in play, talking about prices, addresses, and times of day.</p>	<p>Provide collections for sorting, classifying, and graphing.</p> <p>Have children extend patterns with colored cubes, beads, etc.</p>	<p>Use terms of comparison (the piece of yarn is longer than your arm).</p> <p>Provide empty containers of various shapes for creating junk sculptures.</p>	<p>Provide measuring cups, spoons, containers of various sizes.</p> <p>Ask estimation questions ("How many cups will it take to fill the container?").</p>
Science	<p>Talk with children about size, weight, and balance.</p> <p>Encourage children to experiment with momentum using ramps, balls, and marbles.</p>	<p>Introduce props such as a stethoscope or binoculars.</p> <p>Model hygiene skills by washing "babies" or dishes.</p>	<p>Talk about balance and weight as children use table blocks.</p> <p>Sort, classify, and graph nature items such as rocks, leaves, twigs, and shells.</p>	<p>Describe the properties of materials as they interact (wet, dry, gooey, sticky).</p> <p>Use water and brushes for outdoor painting so children can explore evaporation.</p>	<p>Make bubble solution and provide different kinds of bubble-blowing tools.</p> <p>Put out magnifying glasses and sifters so children can examine different kinds of sand.</p>
Social Studies	<p>Include block people who represent a range of jobs and cultures.</p> <p>Display pictures of buildings in the neighborhood.</p>	<p>Include props related to different kinds of jobs.</p> <p>Add multicultural dolls and props such as cooking utensils, foods, and clothing.</p>	<p>Select puzzles and other materials that include diverse backgrounds and jobs.</p> <p>Play board games that require cooperation, following rules, and taking turns.</p>	<p>Include various shades of skin tone paint, crayons, markers, and construction paper.</p> <p>Encourage children to paint and draw what they saw on a field trip.</p>	<p>Invite children to describe roads and tunnels created in sand.</p> <p>Hang pictures of bodies of water (rivers, oceans, lakes, streams) near the water table.</p>
The Arts	<p>Encourage children to build props, such as a bridge for <i>The Three Billy Goats Gruff</i> for dramatization.</p> <p>Display artwork posters that include geometric shapes and patterns.</p>	<p>Display children's artwork or posters of artists' work in the dramatic play area decor.</p> <p>Provide props for children to dramatize different roles.</p>	<p>Include materials that have different art elements (pattern or texture matching, color games, etc.).</p> <p>Add building toys that encourage creativity such as Legos, Tinker-toys, etc.</p>	<p>Provide different media for children to explore clay, paint, collage, construction, etc.</p> <p>Invite a local artist to share his or her work.</p>	<p>Create sand sculptures; display photographs of sand sculptures created by artists.</p> <p>Use tools for drawing in wet sand.</p>
Technology	<p>Include ramps, wheels, and pulleys.</p> <p>Take pictures (using digital, instant, or regular cameras) of block structures and display in the area.</p>	<p>Include technology props such as old cameras, computers, keyboards, microphones, etc.</p> <p>Encourage children to explore how tools work—eggbeaters, can openers, etc.</p>	<p>Add toys (gears, marble mazes, etc.) that encourage children to explore how things work.</p> <p>Use a light table to explore transparent shapes.</p>	<p>Include recyclable materials for children to create an invention.</p> <p>Use technological tools for creating items such as a potter's wheel or spin art.</p>	<p>Include props with moving parts at the water table—such as waterwheels, eggbeaters, pump, etc.</p> <p>Use toy dump trucks, loaders, cranes for outdoor sand play.</p>



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Exploring Content in Interest Areas

Library	Discovery	Music & Movement	Cooking	Computers	Outdoors
Keep an assortment of good children's books on display. Set up a writing area with pens, markers, pencils, paper, stamps, envelopes, etc.	Keep science related books (e.g., insects, plants, seeds, etc.) on hand. Include paper and markers for recording observations.	Write words to a favorite song on a chart. Have children use instruments for the sound effects in stories.	Use pictures and words on recipe cards. Talk about words and letters on the food containers during a cooking activity.	Illustrate and write the steps in using a computer. Use a drawing or simple word processing program to make a book.	Bring colored chalk and other writing materials outside. Have children observe street signs in the neighborhood.
Add number stamps to the writing area. Include books about math concepts: size, number, comparisons, shapes, etc.	Have tools on hand for measuring and graphing. Provide boxes for sorting materials by size, color, and shape.	Play percussion games emphasizing pattern: softer, louder. Use language that describes spatial relationships—under, over, around, through.	Use a timer for cooking. Provide measuring cups and spoons.	Include software that focuses on number concepts, patterning, problem solving, shapes, etc. Use a drawing program to create patterns.	Have children look for patterns in nature. Invite children to make collections on a walk, then sort, classify, and graph the items collected.
Include books about pets, plants, bodies, water, inventions, etc. Provide a variety of objects for experimentation with floating and sinking.	Include pets and plants that children can care for. Include tools such as a magnifying glass and a microscope that children can use to observe the properties of objects.	Set out bottles with different amounts of water so children can investigate the sounds they produce. Use a tape recorder to record children's voices; play them back for children to identify.	Encourage children to taste, smell, touch, listen, and observe at each step of the cooking process. Discuss how heating and freezing changes substances.	Have children observe cause and effect by hitting a key or dragging a mouse. Allow children to observe as you connect computer components.	Take pictures of a tree the children see every day and discuss how it changes during the year. Have children feel their heartbeat after running or exercising.
Include books that reflect diversity of culture and gender. Show children how to use nonfiction books, picture dictionaries, and encyclopedias to find information.	Take nature walks and post the places where collected leaves and flowers were found. Set up a recycling area where children sort paper, glass, and plastic into bins.	Show videotapes reflecting songs and dances of many cultures and languages. Include instruments from different cultures.	Encourage parents to bring in recipes reflecting their cultures. Visit stores that sell foods of different cultures.	Encourage children to work cooperatively on software related to a study topic. Develop rules with the children for using computers and post them in the area.	Take many trips in the neighborhood and talk about what you see. Invite children to make maps of outdoor environments using chalk on concrete.
Talk about art techniques used by illustrators (e.g., torn paper collage by Leo Lionni). Include children's informational books of famous artwork.	Provide kaleidoscopes and prisms and have children draw the designs they see. Use the materials children have collected on nature walks for collages.	Provide a variety of musical instruments to explore. Add scarves, streamers, and costumes to encourage dancing.	Encourage children to be creative while preparing their snacks. Dramatize foods being cooked—a kernel of popcorn being popped; cheese melting.	Include drawing and painting software. Include software that allows children to create musical tunes.	Bring art materials outdoors for creating pictures and sculptures. Provide streamers and scarves for outdoor dance and movement activities.
Set up a listening area with books on tape. Include books about how things work.	Introduce scientific tools and see if children can figure out what they do. Provide clocks, watches, and gears that children can take apart and put together.	Add an electronic keyboard that produces different sounds. Include tape recorders, CD player, headphones, etc.	Cook a recipe in a microwave and a conventional oven and compare cooking times. Examine how different kitchen gadgets work.	Set up a computer area with open-ended software programs for children to use. Add an inexpensive camera to the computer so children can see themselves on the screen.	Point out examples of technology while on a walk in the neighborhood. Provide tools for investigating outdoors such as magnifying glasses, binoculars, periscopes.





Birth to Three Years - Sequences of Developmental Growth

<i>Intellectual Development</i>			
A Four Month Old	An Eight Month Old	A One Year Old	A Two Year Old
<ul style="list-style-type: none"> • Explores objects with mouth. • Plays with fingers, hands, toes. • Reacts to sound of voice, rattle, bell. • Turns head toward bright colors and lights. • Recognizes bottle or breast. 	<ul style="list-style-type: none"> • Cries in different ways to say he is hurt, wet, hungry, or lonely. • Makes noises to voice displeasure or satisfaction. • Recognizes and looks for familiar voices and sounds. • Learns by using senses like smell, taste, touch, sight, hearing. • Focuses eyes on small objects and reaches for them. • Looks for ball rolled out of sight. • Searches for toys hidden under a blanket, basket, or container. • Explores objects by touching, shaking, banging, and mouthing. • Babbles expressively as if talking. • Enjoys dropping objects over edge of chair or crib. • Expands vocabulary from 4,000 to 6,000 words. 	<ul style="list-style-type: none"> • Says first word. • Says da-da and ma-ma or equivalent. • "Dances" or bounces to music. • Interested in picture books. • Pays attention to conversations. • Claps hands, waves bye, if prompted. • Likes to place objects inside one another. 	<ul style="list-style-type: none"> • Enjoys simple stories, rhymes, and songs. • Uses 2-3 word sentences. • Says names of toys. • Hums or tries to sing. • Enjoys looking at books. • Points to eyes, ears, or nose when asked. • Repeats words. • Interested in learning how to use common items.

Birth to Three Years - Sequences of Developmental Growth

<i>Social and Emotional Development</i>			
A Four Month Old	An Eight Month Old	A One Year Old	A Two Year Old
<ul style="list-style-type: none"> • Cries (with tears) to communicate pain, fear, discomfort, or loneliness. • Babbles or coos. • Loves to be touched and held close. • Responds to a shaking rattle or bell. • Returns a smile. • Responds to peak-a-boo games. 	<ul style="list-style-type: none"> • Responds to own name. • Shows fear of falling off high places such as table or stairs. • Spends a great deal of time watching and observing. • Responds differently to strangers and family members. • Imitates sounds, actions, and facial expressions made by others. • Shows distress if toy is taken away. • Squeals, laughs, babbles, smiles in response. • Likes to be tickled and touched. • Smiles at own reflection in mirror. • Raises arms as a sign to be held. • Recognizes family member names. • Responds to distress of others by showing distress or crying. • Shows mild to severe anxiety at separation from parent. 	<ul style="list-style-type: none"> • Imitates adult actions such as drinking from a cup, talking on phone. • Responds to name. • Likes to watch self in mirror. • Expresses fear or anxiety toward strangers. • Wants caregiver or parent to be in constant sight. • Offers toys or objects to others but expects them to be returned. • May become attached to a favorite toy or blanket. • Pushes away something he does not want. 	<ul style="list-style-type: none"> • Plays alongside others more than with them. • Acts shy around strangers. • Likes to imitate parents. • Easily frustrated. • Affectionate - hugs and kisses. • Insists on trying to do several tasks without help. • Enjoys simple make-believe like talking on phone, putting on hat. • Very possessive - offers toys to other children but then wants them back. • Needs considerable time to change activities. • Capable of frequent tantrums, which are often a result of his inability to express himself even though he has ideas. • Can show aggressive behavior and the intent to hurt others. • Can be extremely demanding and persistent. • Destructive to objects around him when frustrated and angry. • Possessive about caregiver's attention; show feelings of jealousy. • Has fears and nightmares. • Has sense of humor; capable of laughter. • Shows interest in dressing, brushing hair and teeth. • Cannot sit still or play with a toy for more than a few minutes.

Birth to Three Years - Sequences of Developmental Growth

<i>Physical Development</i>			
A Four Month Old	An Eight Month Old	A One Year Old	A Two Year Old
<ul style="list-style-type: none"> • Weight: 10-18 pounds. • Length: 23-27 inches. • Sleeps about 6 hours before waking during the night. • Averages 14-17 hours of sleep daily. • Lifts head and chest when lying on stomach. • Holds both eyes in a fixed position. • Follows a moving object or person with eyes. • Grasps rattle or finger. • Wiggles and kicks with arms and legs. • Rolls over (stomach to back). • Sits with support. 	<ul style="list-style-type: none"> • Weight: 14-23 pounds. • Length: 25-30 inches. • First teeth begin to appear. • Drools, mouths and chews on objects. • Needs at least 3-4 feedings per day. • Reaches for cup or spoon when being fed. • Drinks from a cup with help. • Enjoys some finely-chopped solid foods. • Closes mouth firmly or turns head when no longer hungry. • May sleep 11-13 hours at night although this varies greatly. • Needs 2-3 naps during the day. • Develops a rhythm for feeding, eliminating, sleeping, and being awake. • True eye color is established. • Rolls from back to stomach and stomach to back. • Sits alone without support and holds head erect. • Raises up on arms and knees into crawling position; rocks back and forth, but may not move forward. • Uses finger and thumb to pick up an object. • Transfers objects from one hand to the other. • Hair growth begins to cover head. 	<ul style="list-style-type: none"> • Weight: 17-27 pounds. • Length: 27-32 inches. • Sleeps 11-13 hours at night. • Some babies will stop taking a morning nap; others will continue both morning and afternoon naps. • Begins to refuse bottle or weans self from breast during day. • Needs 3 meals a day with 2 snacks in between. • Enjoys drinking from a cup. • Begins to eat finger foods. • Continues to explore everything by mouth. • Enjoys opening and closing cabinet doors. • Crawls well. • Pulls self to a standing position. • Stands alone holding onto furniture for support. • Walks holding onto furniture or with adult help. 	<ul style="list-style-type: none"> • Weight: 22-38 pounds. • Height: 32-40 inches. • Has almost a full set of teeth. • Walks up and down stairs by holding onto railing. • Feeds self with spoon. • Experiments by touching, smelling, and tasting. • Likes to push, pull, fill, and dump. • Can turn pages of a book. • Stacks 4-6 objects. • Scribbles vigorously with crayons or markers. • Many children (but not all) will learn to use toilet. • Walks without help. • Walks backwards. • Tosses or rolls a large ball. • Stoops or squats. • Opens cabinets, drawers. • Can bend over to pick up toy without falling.
<div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> Reprinted with permission from the National Network for Child Care - NNCC. Oesterreich, L. (1995). Ages & stages - newborn to 1 year. In L. Oesterreich, B. Holt, & S. Karas, Iowa family child care handbook [Pm 1541] (pp. 192-196). Ames, IA: Iowa State University Extension. </div>			

Three to Five Years - Sequences of Developmental Growth

<i>Language and Communication Development</i>			
A Three Year Old	A Four Year Old	A Five Year Old	A Kindergarten Age Child
<ul style="list-style-type: none"> Shows a steady increase in vocabulary, ranging from 2,000 to 4,000 words. Tends to over generalize meaning and make up words to fit. Uses simple sentences of at least 3-4 words to express needs. Pronounces words with difficulty. May have difficulty taking turns in conversation; changes topic quickly. Likes simple finger plays and rhymes. Asks many who, what, where, and why questions but shows confusion in responding to some questions; especially why, how, and when. Uses language to organize thought; overuses such words as but, because, and when. Can retell a simple story but must redo the sequence to put an idea into the order of events. Rarely makes appropriate use of such words as before, after, or until. 	<ul style="list-style-type: none"> Expands vocabulary from 4,000 to 6,000 words. Usually speaks in 5 to 6 word sentences. Likes to sing many songs; knows many rhymes and finger plays. Uses verbal commands to claim many things. Likes to tell others about family and experiences. Expresses emotions through facial gestures and reads others for body cues Can control volumes of voice for periods of time if reminded. Begins to read context for social clues. Uses more advanced sentence structures ("She's nice, isn't she?") and experiments with new constructions. Tries to communicate more than his/her vocabulary allows. Learns new vocabulary quickly if related to own experience. Can retell a 4 or 5 step directive or the sequence in a story. 	<ul style="list-style-type: none"> Employs a vocabulary of 5,000 to 8,000 words. Pronounces words with little difficulty, except for particular sounds. Uses fuller, more complex sentences. Takes turns in conversations. Listens to another speaker if information is new or interesting. Shares experiences verbally. Likes to act out other's roles. Remembers lines of simple poems, repeats full sentences. Uses nonverbal gestures (facial expressions). Can tell and retell stories with practice. Enjoys repeating stories, poems, and songs. Enjoys acting out plays or stories. Shows growing speech fluency in expressing ideas. 	<ul style="list-style-type: none"> Is curious, interested, eager, and active. Learns through firsthand experiences...exploring, manipulation materials, asking questions, making discoveries. Is capable of "losing self" in an activity that is of high interest. Assimilates information more readily when learning is presented in familiar context. Needs concrete experiences rather than abstract ideas. Needs many opportunities to share ideas with peers and adults in order to develop oral speaking and listening skills. Gains understanding of relationships through dramatic play, dramatization of stories, planning and constructing small group projects, and interacting in small group learning centers. Interactions with people and materials helps develop reasoning and memory.

Three to Five Years - Sequences of Developmental Growth

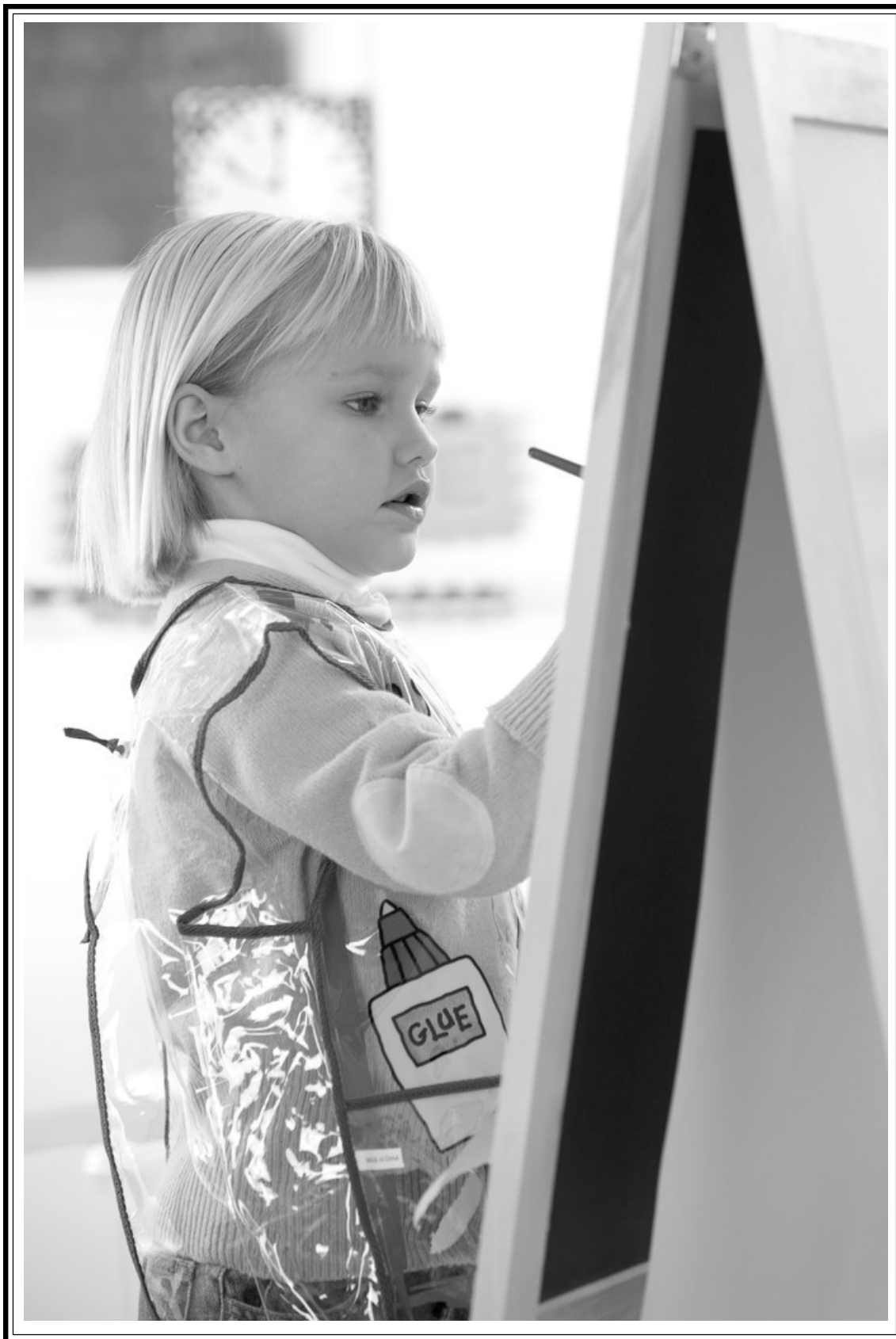
<i>Social and Emotional Development</i>			
A Three Year Old	A Four Year Old	A Five Year Old	A Kindergarten Age Child
<ul style="list-style-type: none"> • May look on from the sidelines or engage in associative play patterns (playing next to a peer, chatting, etc.) • Shows difficulty taking turns and sharing objects. • Lacks ability to solve problems well among peers; usually needs help to resolve a social situation. • Plays well with others and responds positively if there are favorable conditions in terms of materials, space, and supervision. • Acts more cooperatively than does toddler and wants to please adults • Can follow simple requests. • Likes to be treated as an older child at times but may still put objects in mouth that can be dangerous or may wander off. • Expresses intense feelings, such as fear and affection; shows delightful, silly sense of humor. 	<ul style="list-style-type: none"> • Still engages in associative play but begins true give-and-take, cooperative play. • Shows difficulty sharing but begins to understand turn taking and plays simple games in small groups. • Becomes angry easily if things don't go his/her way. • Most often prefers to play with others. • Begins to spontaneously offer things to others; wants to please friends. • Exhibits occasional outbursts of anger but is learning that negative acts bring negative reactions. • Knows increasingly what self-regulation behaviors are expected but shows difficulty following through on a task; becomes easily distracted. • Likes to dress self. • Unable to wait very long regardless of the promised outcome. • Shows greater ability to control intense feelings like fear/anger. 	<ul style="list-style-type: none"> • Enjoys dramatic play. • Cooperates well; forms small groups that may choose to exclude a peer. • Understands the power of rejecting others; verbally threatens to end friendships or select others. • Enjoys others and can behave in a warm and empathetic manner; jokes and teases to gain attention. • Shows less physical aggression; more often uses verbal insult or threatens to hit. • Can follow requests; may lie rather than admit to not following procedures or rules. • May be easily discouraged or encouraged. • Dresses and eats with minor supervision. • Reverts easily to young behaviors when group norms are less than appropriate 	<ul style="list-style-type: none"> • Searches for fairness, trust, and understanding. • Needs positive support in resolving peer conflicts. • Is somewhat self-centered and needs adult assistance in learning to share and take turns. • Respects rules when involved in their development. • Functions more effectively in small groups. • Is in the process of developing an awareness that others do not perceive situations from the same perspective. • Enjoys talking and responds to sincere listeners. • Needs opportunities to interact with peers in a variety of settings. • Accepts guidance and authority when the purpose is understood and reasonable. • Exhibits regressive behavior when over-stimulated, extremely tired, or not feeling well. • Needs success to help build a positive self-image.

Three to Five Years - Sequences of Developmental Growth

<i>Fine-Motor Development</i>			
A Three Year Old	A Four Year Old	A Five Year Old	A Kindergarten Age Child
<ul style="list-style-type: none"> Places large pegs into pegboards. Strings large beads. Pours liquids with some spills. Builds block towers. Easily does puzzles with whole objects represented as a piece. Fatigues easily if much hand coordination is required. Draws shapes, such as circle; begins to design objects, such as a house or figure; draws objects in some relation to each other. Holds crayons or markers with fingers instead of the fist. Undresses without assistance but needs help getting dressed; unbuttons skillfully but buttons slowly. 	<ul style="list-style-type: none"> Uses small pegs and boards. Strings small beads (or may do in a pattern). Pours sand or liquid into small containers. Builds complex block structures that extend vertically. Shows limited spatial judgment and tends to knock things over. Enjoys manipulating play objects that have fine parts. Likes to use scissors. Practices an activity many times to gain mastery. Draws combinations of simple shapes; draws persons with at least four body parts and objects that are recognizable to adults. Dresses and undresses without assistance. Brushes teeth and combs hair. Spills rarely with cup or spoon. Laces shoes/clothing but can not tie. 	<ul style="list-style-type: none"> Hits nail with hammer head. Uses scissors and screwdrivers unassisted. Uses computer keyboard. Builds three dimensional block structures. Does 10-15 piece puzzles with ease. Likes to disassemble and reassemble objects and dress and undress dolls. Has basic grasp of right and left but mixes them up at times. Copies shapes; combines more than two geometric forms in drawing and construction. Draws persons. Prints letters crudely but most are recognizable by an adult. Includes a context or scene in drawing. Prints first name. Zips coat; buttons well; ties shoes with adult coaching; dresses quickly. 	<ul style="list-style-type: none"> Has good locomotor control. Is in the process of developing small muscle control. Tires easily when movement is restricted. Has established eye, hand, and foot dominance. Enjoys participating in physical activities. Needs freedom of movement when pursuing learning activities. Needs opportunities for motoric exploration when working. Needs opportunities to develop rhythmic control of body. Needs activities that continue to refine fine muscle control. Needs experiences that develop responsibility for care and safety of body. Needs adult guidance in finding acceptable outlets for tension and emotions.

Three to Five Years - Sequences of Developmental Growth

Gross-Motor Development			
A Three Year Old	A Four Year Old	A Five Year Old	A Kindergarten Age Child
<ul style="list-style-type: none"> • Walks without watching feet; walks backwards. • Runs at an even pace; turns and stops well. • Climbs stairs with alternating feet, using hand rail for balance. • Jumps off low steps or objects. • Shows improved coordination; begins to move arms and legs to pump a swing or ride a trike. • Perceives height and speed of objects but may be overly bold or fearful, lacking a realistic sense of own ability. • Stands on one foot unsteadily; balances with difficulty on the low balance beam and watches feet. • Plays actively and then needs rest; fatigues suddenly and becomes cranky if overly tired. 	<ul style="list-style-type: none"> • Walks heel-to-toe; skips unevenly; runs well. • Stands on one foot for 5 seconds or more; masters the low balance beam (4 inch width) but has difficulty with 2 inch wide beam. • Walks down steps; alternating feet; judges well in placing feet on climbing structures. • Develops sufficient timing to jump rope or play games requiring quick reactions. • Begins to coordinate movements to climb on a jungle gym or jump on a small trampoline. • Shows greater perceptual judgment and awareness of own limitations and/or consequences of unsafe behaviors. • Exhibits increased endurance with long periods of high energy; still needs supervision in protecting self in certain activities. • Sometimes becomes overexcited and less self-regulated in group activities. 	<ul style="list-style-type: none"> • Walks backwards quickly. • Skips and runs with agility and speed. • Can incorporate motor skills into a game. • Walks a two inch balance beam well. • Jumps over objects. • Hops well; maintains an even gait in stepping. • Jumps down several steps. • Jumps rope. • Climbs well; coordinates movements for swimming or bike riding. • Shows uneven perceptual judgment; acts overly confident at times but accepts limit setting and follows rules. • Displays high energy levels; rarely shows fatigue; finds inactivity difficult and seeks active games and environments. 	<ul style="list-style-type: none"> • Has good control of large muscles. • Tires easily when movement is restricted. • Enjoys participating in physical activities. • Tends to play vigorously and fatigue easily but seldom admits being tired. • Needs freedom of movement when pursuing learning activities. • Needs opportunities for motoric exploration when working. • Needs opportunities to develop rhythmic control of body. • Needs activities that continue to nurture large muscle development. • Needs experiences that develop responsibility for care and safety of body. • Needs adult guidance in finding acceptable outlets for tension and emotions.



EXPLANATION OF TERMS

Alphabetic principle: The understanding that there is a relationship between letters and sounds (e.g., the word *dog* contains three letters and three corresponding sounds or phonemes).

Adult-Initiated: The adult is a guide in each child's learning process. Underlying this approach is an understanding of how children learn best and a set of expectations that guide the adult in planning activities and experiences that are meaningful to children.

Assessment: The process of observing, recording, and otherwise documenting the work children do and how they do it, as a basis for a variety of educational decisions that affect the child. In early childhood, assessment serves several different purposes: to plan instruction for individuals and groups and for communicating with parents; to identify children who may be in need of specialized services of intervention; and to evaluate how well the instruction and curriculum are meeting their goals.

Authentic Assessment: The process of gathering evidence and documentation of a child's learning and growth in ways that resemble "real life" as closely as possible (e.g., observing and documenting a child's work as the child plays in the block area). To measure growth and progress, a child's work is compared to their previous work rather than to the work of others. Authentic assessment is based on what the child actually does in a variety of contexts at points throughout the school year. Authentic work represents the child's application, not mere acquisition, of knowledge and skills. Authentic assessment also engages the child in the activity and reflects best instructional activities.

Child-Initiated: The child takes an active role in learning through active explorations of the environment, by sharing knowledge, and by interacting with adults and other children (e.g., the child brings in a butterfly found at home and wants to share it with the others).

Comprehension: Understanding. Listening comprehension refers to spoken language, reading comprehension refers to written language.

Curriculum: Virtually everything that happens in a child's life involves learning, whether explicitly identified as such or not. All activities and processes through which children learn and what adults do to help children achieve this learning including center work, field trips, organized play, sports, and even routine meals are integral parts of any early childhood curriculum. A developmentally appropriate curriculum is based upon three areas: (1) what is known about child development and learning; (2) what is known about the strengths, interests, and needs of each individual child in the group; and (3) a knowledge of the social and cultural contexts in which each child lives. Curriculum should always be planned based on the best knowledge of theory, research, and practice about how children learn and develop, with attention given to individual needs and interests in a group in relation to program goals.

Decode: The ability to translate the alphabet letters into recognizable sounds (e.g., the letter *f* makes the /f/ sound) and words. NOTE: /r/ - This symbol refers to the letter sound, not the letter name.

Expressive language: Children's accurate and fluent use and knowledge of words in the spoken language.

Fine Motor: Refers to the control of the hand muscles with careful perceptual judgment involving eye-hand coordination. Sometimes referred to as small muscle control.

Fluency: The ability to identify letters and words automatically and with speed.

Gross Motor: Refers to the functional use of the limbs (arms and legs) for such activities as jumping, hopping, skipping, running, and climbing. Sometimes referred to as large muscle control.

Hands-On: Children are doing striving to make sense of their experiences, to relate new information to what they already know, and to acquire understanding. Children's natural tendency to explore and figure things out is active, not passive. Children learn by doing, not simply by listening or looking.

Informal Assessment: A non-standardized measurement by which the adult gauges what a child is able to do in various content areas. Informal assessment helps the adult tailor instruction and curriculum to meet each child's needs and interests.

Inquiry: Active investigation, experimentation, and discovery. Because children are naturally curious, inquiry is a natural part of their lives.

Instruction: Is the process for delivering the curricular goals of the program. This process involves strategies, activities, arrangement of the environment, and relationships with families. Instructional strategies will vary based on each child's needs and interests and each child's cultural and social context.

Letter Knowledge: The ability to identify the letters of the alphabet.

Phoneme: The smallest part of spoken language that makes a difference in the meaning of words. English has about 41 phonemes. Most words have more than one sound or phoneme (e.g., big has three phonemes /b/ /i/ /g/). Sometimes one phoneme is represented by more than one letter (e.g., ck = /k/).

Phonemic awareness is a subcategory of phonological awareness (see below). The focus of phonemic awareness is narrow—identifying and manipulating the individual sounds in words.

Phonological Awareness: The whole spectrum from an awareness of speech sounds: identifying and making oral rhymes; identifying and working with syllables in words; identifying and working with the beginning sound (onset) of a word and the part of the word following the beginning sound (rime); and identifying and working with individual phonemes in words (phonemic awareness).

Phonics: The relation between letters and sounds in written words or an instructional method that teaches children these connections.

Play: In a child's world, play is a child's prime educator. Play enhances the physical, social, emotional, and intellectual development of the young child. A child needs opportunities for play that are active and quiet, spontaneous and planned, indoors and outdoors, and done alone and with peers. When reviewed as a learning process, play becomes a vehicle for intellectual growth. Play involves not only materials and equipment, but also words and ideas that promote literacy and develop thinking skills. Play promotes problem solving, critical thinking, concept formation, creativity, and social/emotional development.

Primary Language: The first language a child learns to speak, also known as their *home language*. For some children, this may be a language other than English.

Problem Solving: The process of forming and revising explanations based on experience is the way that children learn. Open-ended questions or questions for which the child must come up with an answer (e.g., What do you think might happen next?) and investigative situations encourage children to discover on their own and to solve problems with minimal adult assistance.

Receptive Language: Children's listening vocabulary and knowledge of spoken words.

Scaffolded Instruction: Instruction in which adults build upon what children already know and provide support that allows children to perform more complex tasks.

Standardized Assessment: An assessment (test) with validity and reliability from which scores are interpreted against a set of norms, such as state, national, or international norms. Group-administered, standardized, multiple-choice achievement tests are not appropriate before third grade. (NAEYC, 1999)

Teachable Moments: Moments when specific topics spontaneously arise. The topic may emerge through discussion and call for a "lesson in a lesson".

Vocabulary: The words of which one has listening and speaking knowledge.

